



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
11511 MAIN ST., P.O. BOX 90012
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: AT & T Mobility

LOCATION OF PROPOSAL: 600 146th Avenue NE

DESCRIPTION OF PROPOSAL: Application for Administrative Conditional Use approval to modify an existing WCF facility by increasing the height of an existing stealth light pole by 10 feet (to a maximum of 64'-10") and installing 3 more antennas to the existing antenna array. All antennas will be concealed within the proposed canister shroud. GPS antenna to be installed on the existing equipment shed. Additional ground-mounted equipment will be concealed within existing equipment shed.

FILE NUMBERS:

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

- ☐ There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.
- ☒ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on December 27, 2012.
- ☐ This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on _____. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so that it is likely to have significant adverse environmental impacts; if there is significant new information indicating, or on, a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project); or if the DNS was procured by misrepresentation or lack of material disclosure.

Carle Vitelland
Environmental Coordinator

12/11/12
Date

OTHERS TO RECEIVE THIS DOCUMENT:

State Department of Fish and Wildlife
State Department of Ecology,
Army Corps of Engineers
Attorney General
Muckleshoot Indian Tribe



**City of Bellevue
Development Services Department
Land Use Division Staff Report**

Proposal Name: AT&T SD74 Crossroads West

Proposal Address: 600 146th Avenue NE

Proposal Description: Application for Administrative Conditional Use approval to modify an existing WCF facility by increasing the height of an existing stealth light pole by 10 feet (to a maximum of 64'-10") and installing 3 more antennas to the existing antenna array. All antennas will be concealed within the proposed canister shroud. GPS antenna to be installed on the existing equipment shed. Additional ground-mounted equipment will be concealed within existing equipment shed.

File Number: 12-111680-LA, Administrative Conditional Use

Planner: Elizabeth Stead, Planning Manager

Applicant: AT&T Mobility
Sunny Ausink, PTS

Decisions Included: Administrative Conditional Use Approval (Process II, Land Use Code 20.30E)

**State Environmental Policy Act
Threshold Determination:**

Determination of Non-Significance (DNS)

Carol V. Helland
Carol V. Helland, Environmental Coordinator
Development Services Department

Director's Decision:

Approval with Conditions
Mike Brennan, Director
Development Services Department

Carol V. Helland
By: Carol V. Helland, Land Use Director

Notice of Application: June 7, 2012
14-day Comment Period: June 21, 2012
Decision Publication Date: December 13, 2012
Appeal Deadline: December 27, 2012

For information on how to appeal the project, visit the Permit Center at City Hall or call (425) 452-6864. Appeal of the decision must be received in the City Clerk's office by 5 p.m. on the date noted for the appeal deadline.

I. Request/Proposal Description

A. Request

The applicant (AT&T Mobility) is requesting administrative conditional use approval to expand an existing wireless communications facility (WCF). The applicant is proposing to extend an existing 54'-10" tall stealth Puget Sound Energy (PSE) pole, which currently supports six stacked WCF antennas, by ten feet. The proposal includes the replacement of an existing 16' tall canister with a new 26' tall canister. The existing pole supporting the canisters will remain at a height of 32'-9". Three new LTE panel antennas will be flush mounted within the new canister along with the six existing antennas, on this extension. The proposed new canister shroud will conceal all of the existing and new equipment from public view.

One proposed new GPS antenna is to be located on top of the existing equipment shelter adjacent to an existing antenna, and will be located at the same height as the existing. Proposed new ancillary equipment, including six new RRH units will be mounted at the exterior of the existing shed within an existing metal shroud. In addition, other ancillary equipment will be placed in the existing above grade equipment shelter and will be screened with the existing mature vegetation that was required per a condition of approval for the existing WCF. This WCF upgrade will allow the applicant to expand its high speed data networks to meet the needs of residents in the Crossroads neighborhood.

Figure 1 – Proposal Site Plan

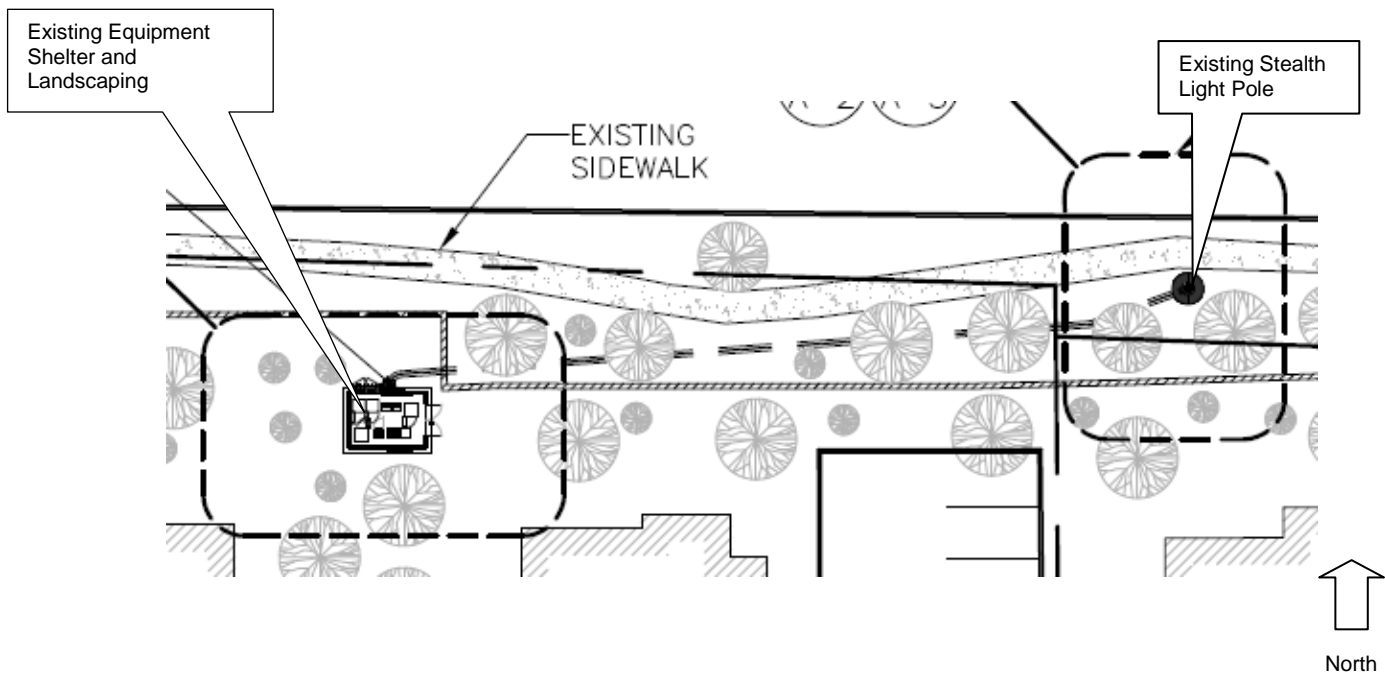
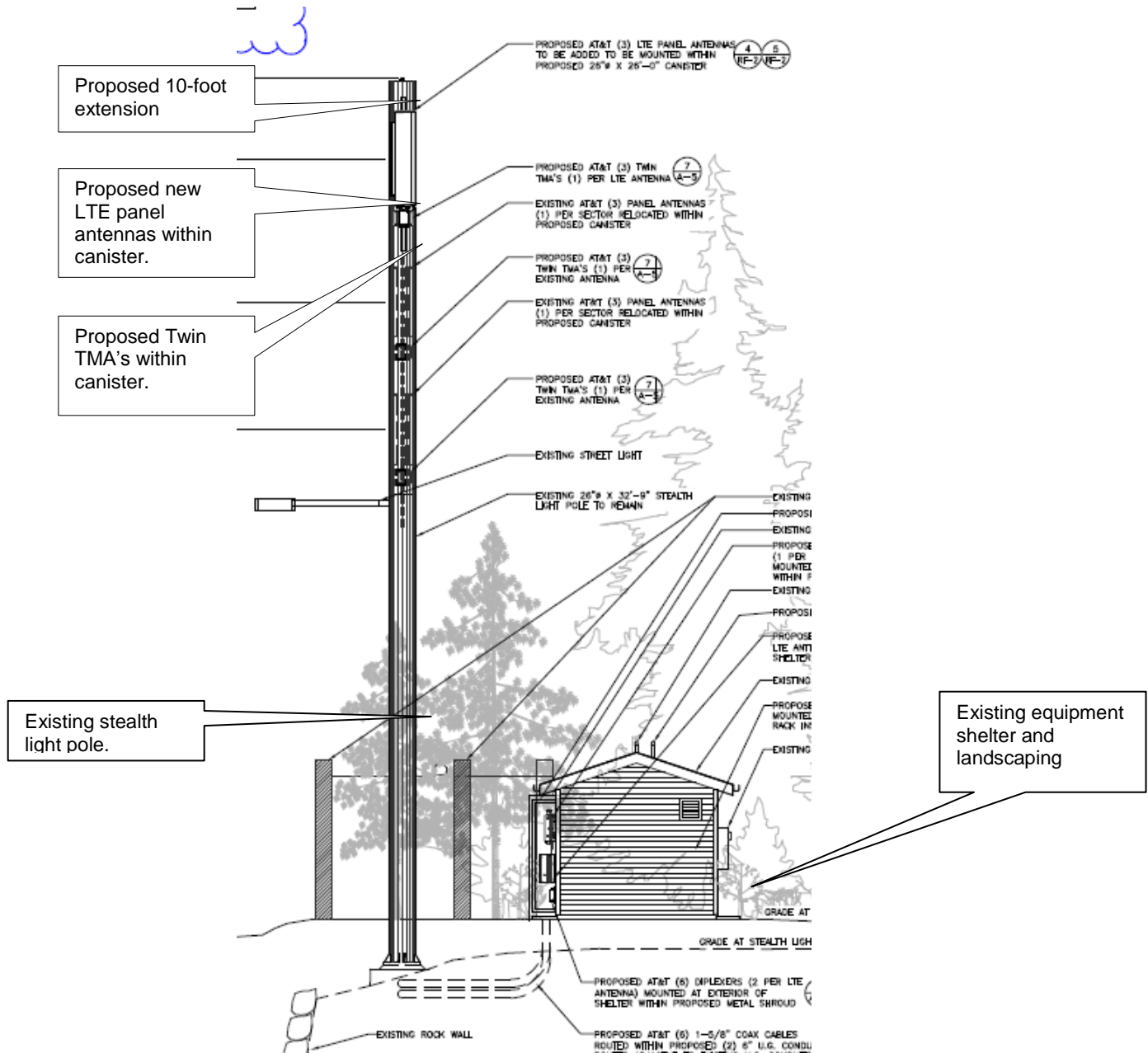


Figure 2 – Proposed Elevation



B. Process:

The existing WCF was approved through an Administrative Conditional Use (ACU) 04-136109-LA. Land Use Review is required for this expansion because the proposal will add height to the existing support structure (PSE pole) within a residential land use district. However, because the WCF is not within 520-feet of any other WCF located either in the public right-of-way or on property owned by the City, the proposal will require review as a new ACU instead of a full Conditional Use. SEPA review will also be required. The ACU

approval and SEPA Threshold Determination are Process II decisions made by the Director of the Development Services Department. Both include public noticing with a minimum 14-day comment period. The Director's decision shall be written in a staff report to indicate whether the application has been approved, approved with conditions, or denied. The decision will be publically noticed with a mandatory 14-day appeal period. Process II decisions may be appealed and the appeal shall be heard at a public hearing before the City Hearing Examiner.

II. Site Description and Zoning

A. Site Description:

The existing stealth light pole with six WCF antennas flush mounted in a canister shroud are located within the public right-of-way in a Multifamily Residential zoning district, near the intersection of NE 8th Street and 148th Avenue NE. The ancillary mechanical equipment for this facility is located 150 feet away from the pole on adjacent private property (600 146th Ave NE) in equipment shed. The immediate neighborhood includes a variety of zoning districts ranging from Multifamily Residential (R-20), to Professional Office (PO).

Figure 3 - Aerial Photograph/Site Context



The existing dense planting of landscape material, required for the existing WCF, effectively screens the equipment shed. Because no changes are proposed to the exterior of the shed, this landscaping will not be altered as a result of this

proposal. In addition, there is a fairly dense stand of evergreen trees to the east of the pole location which further help to hide the pole when viewed from the east.

Figure 4 – Site Photos



Looking west Existing Equipment Shed



Existing Stealth Pole

Existing Conditions on Pole

The existing pole and canister shroud are in good condition overall. The new shroud should be painted to match the existing pole and all equipment must be placed within the shroud. **Refer to Condition of Approval regarding shroud color in Section VII of this report.**

B. Zoning and Context

The pole is located within the R-20, multifamily land use district. Adjacent uses include the following:

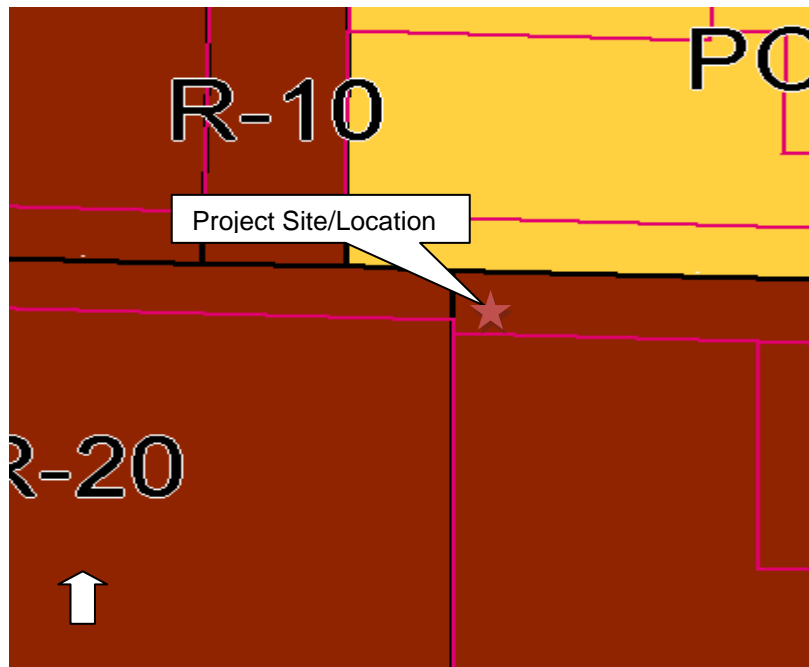
North: PO and R-10: The pole is located across NE 8th St. from two churches and a professional office building.

South: R-20: Multifamily, Highland Village Apartments (the equipment shed is located on the complex site)

East: R-20: Eastside Terrace, King County Housing Authority

West: R-10: Multifamily residences.

Figure 5 - Zoning Map



III. Environmental Impacts of the Proposal

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist adequately discloses expected environmental impacts associated with the project. The Checklist is available for public viewing in the project file in the Record's Office at Bellevue City Hall. The City codes and requirements, including

the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes adequately mitigate expected environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

IV. Public Comments

The City initially notified the public of this proposal on June 7, 2012 with mailed notice and publication in the *Weekly Permit Bulletin*. One, double-sided public information sign was installed on the site on the same day. No comments were received at the time of this writing.

V. Applicable Decision Criteria / Findings and Conclusions

Compliance with the decision criteria of Land Use Code Section 20.30E.140 (Administrative Conditional Use Permit) is discussed below.

A. The administrative conditional use is consistent with the Comprehensive Plan.

As conditioned, the proposal is consistent with the City of Bellevue's Comprehensive Plan regarding wireless communications facilities. The Comprehensive Plan Utilities Policies listed below are especially relevant to the City's decision on this application:

Policy UT-40: Requires the reasonable screening and/or architecturally compatible integration of all new above-ground facilities.

Policy UT-41: Protect Bellevue's aesthetic quality and infrastructure investment from unnecessary degradation caused by the construction of telecommunication infrastructure.

Policy UT-53: Requires all utility equipment support facilities to be aesthetically compatible with the area in which they are placed by using landscape screening and/or architecturally compatible details and integration.

Policy UT-55: Requires the placement of personal wireless communication facilities in a manner that minimizes the adverse impacts on adjacent land uses.

Finding: Significant improvements were previously made when the existing WCF was installed. The existing concrete light standard was replaced with a cylindrical steel light standard. Flush mounted antennas were placed inside a canister shroud painted to match the pole. The associated mechanical equipment was placed approximately 150 feet away on private property in a shed designed to match the surrounding buildings. The equipment shed is densely landscaped to provide screening from the adjacent residential community. Because there will be no exterior changes to the vault, no additional landscaping will be

necessary. **Refer to Figure 4 in Section 2 of this report for photos of the existing condition.**

As conditioned, the canister extension will be of a similar material as the existing pole and the new antennas and ancillary equipment will all be located within the canister. As a condition of approval the shroud will be required to be painted to match the existing pole. **Refer to Condition of approval regarding canister color and materials in Section VII of this report.**

Policy UT-43: Encourages consolidation on existing facilities where reasonably feasible and where such consolidation leads to fewer impacts than would construction of separate facilities.

Finding: The proposal involves consolidation of facilities on an existing utility pole that currently has one WCF with six antennas. Therefore, no new pole in another location will be required.

Policy UT-60: Minimize visual impact of personal wireless communication facilities by encouraging deployment in land use districts in the following preferred and descending order when possible, considering the provider's coverage needs: 1) Non-residential land use districts, except Transition Areas; 2) Transition Areas; 3) Multifamily (R-20 and R-30) districts; and 4) and Park site and Residential districts.

Finding: No other preferred alternatives were identified within the search area given the fact that AT&T (formerly Cingular) has maintained a cellular tower on this site since 2004 per previous land use approval (04-136109 LA). AT&T will not modify the previously approved location of either the pole or the equipment shed

Policy UT-61: Minimize visual impact of personal wireless communication facilities by encouraging system designs in the following preferred and descending order: 1) attached to public facility structures, building mounted, or integrated with utility poles, light standards, and signal supports; 2) co-located on utility poles, light standards, signal supports; and 3) free standing towers.

Finding: This proposal will be co-located on an existing PSE light pole where there is already a WCF with six antennas. Co-locating on one existing pole is preferable to construction of an entirely new WCF in another location.

B. The design is compatible with and responds to the existing or intended character, appearance, quality of development and physical characteristics of the subject property and immediate vicinity;

Finding: To ensure that the facility is compatible with property in the immediate vicinity, the proposal incorporates the following measures:

- 1) The new 26' tall canister shroud will be of a similar material and color as the existing pole. The canister will be painted grey to match the existing pole.
- 2) The pole height will be increased from 54'-10" feet to 64'-10" feet and is the minimum necessary to add three more antennas while still providing for the effective functioning of the system.
- 3) The three panel antennas and ancillary equipment will be flush mounted within the canister with no visible equipment at the exterior of the canister. The associated mechanical equipment will be located in the equipment shed, which is already adequately screened with mature landscaping.
- 4) Coaxial cables will be routed entirely within the pole. All conduit carrying coaxial cable from the proposed equipment building to the proposed antennas will run underground to the pole

Refer to Condition of Approval regarding antenna and equipment color and pole extension color and material, antenna mounting, and cabling/shroud in Section VII of this report.

C. The administrative conditional use will be served by adequate public facilities including streets, fire protection, and utilities.

Finding: The proposed facility will continue to be located both on a public right-of-way (pole and antenna) and on private property (equipment shelter). Both of these locations are already adequately served by public facilities including streets, fire protection and utilities.

The Fire Department has reviewed this application and has determined that there are no substantial concerns. **Refer to Conditions of Approval regarding existing City of Bellevue radio systems and interference in Section VII of this Staff Report.**

D. The administrative conditional use will not be materially detrimental to uses or property in the immediate vicinity of the subject property; and

Finding: The proposal hides the antennas within a shroud, atop an existing light standard. The addition of ten feet to the canister will result in a WCF that will not substantially change the impact of the existing WCF. A condition of approval will require that the new canister match the existing pole color. By doing so, the project will not be materially detrimental to uses or property in the neighborhood.

Finally, the facility will be removed when it ceases to be operational or falls into disrepair and is not maintained, or if the utility support structure is removed or placed underground. **Refer to Condition of Approval regarding antenna and equipment color and canister extension color, the removal of abandoned sites, and removal upon undergrounding in Section VII of this staff report.**

E. The administrative conditional use complies with the applicable requirements for a wireless communication facility as provided by the Land Use Code 20.20.195, including location and design preferences.

Finding: As conditioned, the proposed wireless facility complies with the location and design preferences as detailed in LUC 20.20.195. Further, the proposal meets all specific Land Use Code requirements applicable to non-exempt wireless communications facilities per LUC 20.20.195.D, as summarized below.

1. Height: The WCF height will be increased by ten (10) feet, from the existing 54'-10" feet to 64'-10" feet. The height is necessary to enable the three additional antennas to achieve AT&T's functional needs and provide coverage without interference from surrounding trees. The height is roughly as tall as each antenna and the amplifier mounted below. Although the proposed pole height exceeds the maximum height allowed for an exempt WCF in a residential land use district, it is the minimum necessary for effective functioning of the provider's network, as certified by the provider's licensed radio frequency (RF) engineer. The certification letter is available in the project file at the Record's Office in Bellevue City Hall.

2. WCF Location and Design

a. Preferred Location (LUC 20.20.195D.2.a):

Located within a multifamily residential land use district, the proposal falls within the second least preferred location according to the siting criteria of LUC 20.20.195.D.2.a. However, while non-residential property would be a preferred location, no such option exists given the coverage area requirements for this application. In addition because this WCF is collocated on an existing light standard the location is much more preferable than creating a new pole on another site in a commercial land use district.

b. Preferred Facility Design (LUC 20.20.195D.2.b):

The requirements for wireless communication facilities encourage co-locating facilities versus building new single-purpose monopoles. AT&T's proposal is consistent with this direction, since they have opted to co-locate on an existing PSE light standard that has an existing, previously-approved WCF. The proposal represents the second most preferred system design alternative (co-located on utility poles, light standards, and signal supports) under LUC 20.20.195D.2.b.

In addition, the applicant's radio frequency engineer has certified that the mechanical equipment is the minimum necessary to support operation of the facility. This certification letter can be found in the project file at the Record's Office in Bellevue City Hall.

c. Minimizing Adverse Impacts LUC 20.20.195D.2.c:

Application of the location and design hierarchies as described above, and the conditions found in Section VII of this report, will result in a proposal that minimizes the adverse impacts of the WCF when considering the search ring as a whole. In addition, the applicant has provided a letter from the RF engineer which states that the facility complies with RF Emission Guidelines set forth by the FCC. This certification letter can be found in the project file at the Record's Office in Bellevue City Hall.

3. Dispersal Limits: The applicant has verified that there are no other WCF's within 520 feet of this proposal in the public right of way.

4. Development Standards: The proposal includes the following development standards to ensure that the WCF minimizes the adverse impacts, especially visual and aesthetic impacts, on the property where the facility is located and in the vicinity of the facility.

a. Screening Techniques:

The new equipment required for the three new antennas will be located within the existing equipment shed. The shed is adequately screened and no new landscaping/screening around the shed will be required. Any disturbance to existing vegetation must be restored. All coaxial cables, both existing and proposed, will be contained within the new canister and existing stealth pole. The mechanical equipment will be connected to the pole via underground coaxial conduits. Refer to Conditions of Approval regarding shrub protection/site disturbance and restoration, and canister extension material and color in Section VII of this report.

b. Design and configurations to minimize visual intrusion of the facility:

The panel antennas and ancillary equipment will be attached to the existing PSE light pole and sheathed within a new canister attached to the existing pole. The new canister will be painted grey to match to match the existing stealth pole as closely as possible to reduce the overall visual impact. Refer to Condition of Approval regarding antenna mounting and canister color in Section VII of this report.

c. Construction and site restoration techniques:

There will be minor clearing to bury the underground coaxial conduits, connect to necessary utilities, and to install the equipment cabinet. All construction activities must adhere to the city's noise and construction hours, codes and requirements. All areas of disturbance during construction will be restored and the applicant will provide an assurance device to ensure correct installation and plant establishment. The facility will not be activated until all work shown on the plans and specifications is completed.

The applicant will be required to obtain a right of way permit that will address traffic control and pedestrian impacts. **Refer to Condition of Approval regarding shrub protection/site disturbance and restoration, noise and construction hours, and completion of work/facility activation in Section VII of this report.**

d. WCF Equipment:

WCF equipment in residential districts is required to be screened to minimize the visual impact of the equipment on adjacent land uses. The proposal equipment will be located within the existing equipment shelter, which is adequately screened with mature vegetation. Any unintended disturbance of the existing vegetation will require full restoration. **Refer to Condition of Approval regarding site disturbance and restoration in Section VII of this report.**

e. Co-location:

This proposal is for co-location of three new antennas on the existing pole. Additional co-location on the pole for other carriers may be a possibility, subject to technical feasibility. However, specific details or analysis with regards to future co-location have not been included as part of this proposal.

- 5. Radio Frequency Emissions:** The Engineering Certification Letter submitted by AT&T's radio frequency engineer states that the facility will comply with the radio frequency emission standards adopted by the Federal Communications Commission (FCC). This certification letter can be found in the project file at the Record's Office in Bellevue City Hall.
- 6. Setback Requirements for Freestanding Wireless Communication Facilities:** Setbacks requirements do not apply because the proposed antennas are on an existing PSE light pole with existing equipment shed.
- 7. Independent Technical Review:** No such review was deemed necessary for this application.
- 8. Removal of Abandoned Antennas and Towers:**
Refer to Condition of Approval regarding abandoned sites in Section VII of this report.
- 9. Removal Upon Under-grounding:**
Refer to Condition of Approval regarding removal of the facility upon undergrounding in Section VII of this report.

VI. Decision

After conducting the various administrative reviews associated with this proposal, including applicable land use consistency, SEPA, and City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **APPROVE** the proposal subject to the following **CONDITIONS**:

VII. CONDITIONS OF APPROVAL:

The following conditions are imposed under authority referenced:

Compliance with Bellevue City Codes and Ordinances

The applicant shall comply with all applicable Bellevue City Codes, Standards, and Ordinances including but not limited to:

Applicable Codes, Standards & Ordinances

Clearing & Grading Code – BCC 23.76
Construction Codes – BCC Title 23
Fire Code – BCC 23.11
Land Use Code – BCC Title 20
Noise Control – BCC 9.18
Sign Code – BCC Title 22
Right-of-Way Use Code 14.30
Utility Code – BCC Title 24

Contact Person

Janney Gwo, (425) 452-6190
Building Division, (425) 452-6864
Adrian Jones, (425) 452-6032
Liz Stead, (425) 452-2725
Liz Stead, (425) 452-2725
Liz Stead, (425) 452-2725
Tim Stever, (425) 452-4294
Mark Frazier, (425) 452-2022

1. Noise & Construction Hours

The proposal will be subject to normal construction hours of 7 a.m. to 6 p.m., Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Proximity to existing residential uses will be given special consideration. Upon written request to the Development Services Department (DSD), work hours may be extended to 10:00 p.m. if the criteria for extension of work hours as stated in BCC 9.18 can be met and the appropriate mitigation employed.

The use of best available noise abatement technology consistent with feasibility is required during construction to mitigate construction noise impacts to surrounding uses.

REVIEWER: Liz Stead, Land Use
AUTHORITY: BCC 9.18.020.C & 9.18.040

2. Shrub Protection/Site Disturbance and Restoration

During construction, the applicant is required to protect existing plant material, including all shrubs and groundcover around the existing equipment shelter. The applicant shall fully restore with appropriate and approved groundcover, to the satisfaction of Land Use, any areas disturbed and or damaged during construction or future maintenance of either the WCF or its associated equipment. Prior to permit close out, the applicant shall contact the City of Bellevue Land Use reviewer to set up a Land Use Inspection on-site to review any required plant replacement. Contact Liz Stead at (425) 452-2725, estead@bellevuewa.gov to arrange inspection.

REVIEWER: Liz Stead, Land Use
AUTHORITY: LUC20.20.195.D.4.c

3. Completion of Work/Facility Activation

The facility shall not be activated until all work included in the project scope and shown on the plans and specifications is completed.

REVIEWER: Liz Stead, Land Use
AUTHORITY: LUC 20.40.425

4. Antenna Mounting

The antennas and any ancillary equipment shall be attached to the light pole such that no portion of the antenna or ancillary equipment is visible at the exterior of the canister shroud.

REVIEWER: Liz Stead, Land Use
AUTHORITY: LUC 20.20.195.B.1.a.v

5. Antenna and Equipment Color & Pole Extension Color and Material

The new canister shroud shall be painted to match the existing PSE light pole.

REVIEWER: Liz Stead, Land Use
AUTHORITY: LUC 20.20.195.D.4.a

6. Cabling/Shroud

All cable connections to each antenna, either existing or proposed, shall be routed through the stealth pole and canister shroud attached to the pole

REVIEWER: Liz Stead, Land Use
AUTHORITY: LUC 20.20.195.B.1.a.iii

7. Right-of-Way Use Permit

Any use of the public right of way to accomplish the work required to add or upgrade facilities, will require a ROW Use Permit.

Traffic control plans must be submitted with the Right of Way Use permit materials for work at this site. Plans must show pedestrian system impacts and mitigations with the understanding that the pathway on the south side of the street is a school route and closure of this pathway will not be allowed during construction without a temporary hard-surface pathway provided. Short-term, flagged, pathway controls may be allowed during non-school transit periods.

REVIEWER: Tim Stever, Right-of-Way
AUTHORITY: BCC 14.30.070 and 14.30.080

8. Existing Radio System & Interference

If this telecommunications system causes interference problems with any of the existing radio systems for the City of Bellevue, this system will be required to immediately shut down until the interference can be removed or corrected.

REVIEWER: Adrian Jones, Fire Department
AUTHORITY: FCC 90.672

9. Removal of Abandoned Sites

The owner of this facility shall provide the Director with copies of any notice of intent to cease operations that is provided to the Federal Communications Commission (FCC). All WCFs and the associated equipment shall be removed by the facility owner within 90 days of the date it ceases to be operational, or if the facility falls into disrepair and is not maintained. Disrepair includes structural features, paint, or general lack of maintenance, which could result in safety or visual impacts.

REVIEWER: Liz Stead, Land Use
AUTHORITY: LUC 20.20.195.D.8

10. Removal Upon Undergrounding:

The facility shall be removed at no expense to the City if co-located on an electrical system facility or utility support structure that is subsequently undergrounded.

REVIEWER: Liz Stead, Land Use
AUTHORITY: LUC 20.20.195.D.9

Attachments

Project Plans
SEPA Checklist



CROSSROADS WEST

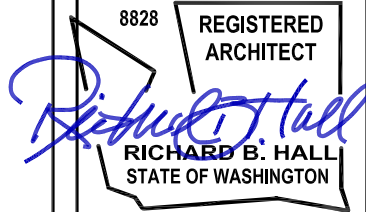
SD74

SD74
600 146TH AVE NE
BELLEVUE, WA 98005

T-1

- THE CONTRACTOR SHALL NOTIFY TOWER NETWORK CARRIER OF ANY ERRORS, OMISSIONS, OR INCONSISTENCIES AS THEY MAY BE DISCOVERED IN PLANS, DOCUMENTS, NOTES, OR SPECIFICATIONS PRIOR TO STARTING CONSTRUCTION INCLUDING, BUT NOT LIMITED BY, DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERROR, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE MEANS OF CORRECTING ANY ERROR SHALL FIRST BE APPROVED BY TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER.
2. PRIOR TO THE SUBMISSION OF BIDS, CONTRACTORS INVOLVED SHALL VISIT THE JOB SITE TO FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT. CONTRACTORS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR HAVING BEEN AWARDED THIS PROJECT SHALL VISIT THE CONSTRUCTION SITE WITH THE CONSTRUCTION/CONTRACT DOCUMENTS TO VERIFY FIELD CONDITIONS AND CONFIRM THAT THE PROJECT WILL BE ACCOMPLISHED AS SHOWN. PRIOR TO PROCEEDING WITH CONSTRUCTION, ANY ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER VERBALLY AND IN WRITING.
3. FOR COLLOCATION SITES: CONTACT TOWER OWNER REPRESENTATIVE FOR PARTICIPATION IN BID WALK.
4. NOT USED
5. THE ARCHITECTS/ENGINEERS HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. CONTRACTORS BIDDING THE JOB ARE NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS. THE BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE ARCHITECT/ENGINEER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO SUBMISSION OF CONTRACTOR'S PROPOSAL. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED OTHERWISE.
6. DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCE. TOWER NETWORK CARRIER IS NOT RESPONSIBLE FOR ANY ERRORS RESULTING FROM THIS PRACTICE. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS.
7. OWNER, CONTRACTOR, AND TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER SHALL MEET JOINTLY TO VERIFY ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.
8. THE GENERAL CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
9. THE CONTRACTOR SHALL PERFORM WORK DURING OWNER'S PREFERRED HOURS TO AVOID DISTURBING NORMAL BUSINESS.
10. THE CONTRACTOR SHALL PROVIDE TOWER NETWORK CARRIER PROPER INSURANCE CERTIFICATES NAMING TOWER NETWORK CARRIER AS ADDITIONAL INSURED, AND TOWER NETWORK CARRIER PROOF OF LICENSE(S) AND PE & PD INSURANCE.
11. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
12. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
13. ALL WORK PERFORMED ON THE PROJECT AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK.
14. NOT USED
15. A COPY OF GOVERNING AGENCY IS APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW, SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. THE ORIGINAL PERMIT SET PLANS ARE NOT TO BE USED BY THE WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION AS GOVERNING AGENCY APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS, IN GOOD CONDITION, COMPLETE WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES UNDER THE DIRECT CARE OF THE SUPERINTENDENT. THE CONTRACTOR SHALL SUPPLY TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER, WITH A COPY OF ALL REVISIONS, ADDENDA, AND/OR CHANGE ORDERS AT THE CONCLUSION OF THE WORK AS A PART OF THE AS-BUILT DRAWING RECORDS.
16. THE STRUCTURAL COMPONENTS OF ADJACENT CONSTRUCTION OR FACILITIES ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.
17. THE CONTRACTOR SHALL STUDY THE STRUCTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING PLANS AND CROSS CHECK THEIR DETAILS, NOTES, DIMENSIONS, AND ALL REQUIREMENTS PRIOR TO THE START OF ANY WORK.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE PROJECT AND SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE.
19. THE CONTRACTOR HAS THE RESPONSIBILITY OF LOCATING ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR, OR SUBCONTRACTOR AS SPECIFIED IN THE AGREEMENT BETWEEN SUBCONTRACTOR AND CONTRACTOR, SHALL BEAR THE EXPENSES OF REPAIR AND/OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGE BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
20. THE REFERENCES ON THE DRAWINGS ARE FOR CONVENIENCE ONLY AND SHALL NOT LIMIT THE APPLICATION OF ANY DRAWING OR DETAIL.
21. ALL DIMENSIONS ON THE PLANS ARE TO FACE OF STUD (F.O.S.) UNLESS NOTED OTHERWISE (U.N.O.).

- GENERAL CONTRACTOR IS TO COORDINATE ALL POWER INSTALLATION WITH POWER COMPANY AS REQUIRED. CONTRACTOR TO REPORT POWER INSTALLATION COORDINATION SOLUTION(S) TO NETWORK CARRIER REPRESENTATIVE, PROJECT CONSTRUCTION MANAGER AND ARCHITECT.
50. ANY SUBSTITUTIONS OF MATERIALS AND/OR EQUIPMENT, MUST BE APPROVED BY TOWER NETWORK CARRIER CONSTRUCTION MANAGER.
51. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REMEDY ALL FAULTY, INFERIOR, AND/OR IMPROPER MATERIALS, DAMAGED GOODS, AND/OR FAULTY WORKMANSHIP FOR ONE (1) YEAR AFTER THE PROJECT IS COMPLETE AND ACCEPTED UNDER THIS CONTRACT; UNLESS NOTED OTHERWISE IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR. (EXCEPTION) THE ROOFING SUBCONTRACTOR SHALL FURNISH A MAINTENANCE AGREEMENT FOR ALL WORK DONE, COSIGNED BY THE GENERAL CONTRACTOR, TO MAINTAIN THE ROOFING IN A WATERTIGHT CONDITION FOR A PERIOD OF TWO (2) YEARS STARTING AFTER THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT, UNLESS OTHERWISE WRITTEN IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR.
52. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR THE SAFETY OF THE OWNER'S EMPLOYEES, WORKMEN, AND ALL TIMES DURING THE CONSTRUCTION OF THE PROJECT.
53. THE CONTRACTOR SHALL BE REQUIRED TO PAY FOR ALL NECESSARY PERMITS AND/OR FEES WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR HIS REPRESENTATIVE. CONTRACTOR SHALL OBTAIN PERMIT AND MAKE FINAL PAYMENT FOR SAID DOCUMENT.
54. NOT USED
55. TOWER NETWORK CARRIER WILL REVIEW AND APPROVE SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH DESIGN CONCEPT. TOWER NETWORK CARRIER PROJECT APPROVAL OF A SEPARATE ITEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY IN WHICH THE ITEM FUNCTIONS.
56. ALL ANTENNAS MOUNTED ON ROOF SUPPORT FRAMES TO BE PROVIDED BY TOWER NETWORK CARRIER COMMUNICATIONS.
57. CONTRACTOR TO PROVIDE TRENCH AS REQUIRED TO INSTALL BOTH ELECTRICAL AND TELEPHONE UNDERGROUND CONDUITS (#40 PVC) PER S.C.E. WORKORDER. BACKFILL WITH CLEAN SAND AND COMPACT TO THE SATISFACTION OF THE DISTRICTS INSPECTOR. REPLACE FINISH GRADE WITH MATCHING MATERIALS (GRASS, ASPHALT, CONCRETE, ETC.)
58. CONTRACTOR TO PROVIDE HEAVY STEEL PLATES AT OPEN TRENCHES FOR SAFETY AND TO PROTECT EXISTING GROUND SURFACES FROM HEAVY EQUIPMENT UTILIZED DURING CONSTRUCTION.
59. CONTRACTOR TO PATCH AND REPAIR ALL GROUND SURFACES WITHIN THE CONSTRUCTION AREA AS NECESSARY TO PROVIDE A UNIFORM SURFACE AND MAINTAIN EXISTING SURFACE DRAINAGE SLOPES.
60. CONTRACTOR TO REPLACE LANDSCAPE VEGETATION THAT WAS DAMAGED DUE TO CONSTRUCTION, AND TO MODIFY REMAINING IRRIGATION LINES TO OPERATING CONDITION, PROVIDING FULL COVERAGE TO IMPACTED AREAS.
61. IN THE CASE OF ROOFTOP SOLUTIONS FOR EQUIPMENT AND/OR ANTENNA FRAMES WHERE PENETRATION OF EXISTING ROOFING MATERIALS OCCUR, THE GENERAL CONTRACTOR SHALL COORDINATE WITH BUILDING OWNER AND BUILDING ROOFING CONTRACTOR OF RECORD FOR INSTALLATION, PATCH, REPAIR OR ANY AUGMENTATION TO THE ROOF, AND HAVE THE WORK GUARANTEED UNDER THE ROOFING CONTRACTOR'S WARRANTY FOR MOISTURE PENETRATION OR AND OTHER FUTURE BREACH OF ROOFING INTEGRITY.
62. IN THE CASE OF ROOFTOP SOLUTIONS WITH THE INSTALLATION OF ANTENNAS WITHIN CONCEALED (SHROUDED) SUPPORT FRAMES OR TRIPODS, THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE FRP DESIGNER/FABRICATOR TO ENSURE THAT THE FINAL FRP SHROUD IS SIMULATING (IN APPEARANCE) DESIGNATED EXISTING EXTERIOR BUILDING FACADE MATERIALS, TEXTURES, AND COLORS. THE CONTRACTOR SHALL FURTHERMORE ENSURE THE USE OF COUNTERSUNK FASTENERS IN ALL FRP CONSTRUCTION. WHEN PHOTOSIMULATIONS ARE PROVIDED, THE CONTRACTOR SHALL ENSURE THAT FINAL CONSTRUCTION REPRESENTS WHAT IS INDICATED IN PHOTOSIMULATION. SHOP DRAWINGS SHALL BE PROVIDED TO THE GENERAL CONTRACTOR, CONSTRUCTION COORDINATOR, AND ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.
63. IN THE CASE OF ROOFTOP SOLUTIONS FOR EQUIPMENT AND/OR ANTENNA FRAMES WHERE ANCHORING TO A CONCRETE ROOF SLAB IS REQUIRED, CONTRACTORS SHALL CONFIRM (PRIOR TO SUBMITTING BID) WITH CONSULTING CONSTRUCTION COORDINATOR AND ARCHITECT THE PRESENCE OF POST TENSION TENDONS WITHIN THE ROOF SLAB - RESULTING FROM AN UNDOCUMENTED DESIGN CHANGE IN THE EXISTING BUILDING "AS-BUILT DRAWING SET" - HAVING INDICATED AN ORIGINAL DESIGN SOLUTION OF REINFORCED CONCRETE W/ EMBEDDED STEEL REBAR. IN THE EVENT POST TENSION SLAB SOLUTION IS PRESENT, CONTRACTOR SHALL INCLUDE PROVISIONS FOR X-RAY PROCEDURES (INCLUDED IN BID) FOR ALL PENETRATION AREAS WHERE ANCHORING OCCURS.
64. GENERAL & SUB CONTRACTORS SHALL USE STAINLESS STEEL METAL LOCKING TIES FOR ALL CABLE TRAY TIE DOWNS AND ALL OTHER GENERAL TIE DOWNS (WHERE APPLICABLE). PLASTIC ZIP TIES SHALL NOT BE PERMITTED FOR USE ON TOWER NETWORK CARRIER PROJECTS. RECOMMENDED MANUFACTURE SHALL BE: PANDUIT CORP. METAL LOCKING TIES MODEL NO. MLT45-CP UNDER SERIES-304 (OR EQUAL). PANDUIT PRODUCT DISTRIBUTED BY TRIARC.
65. NOT USED.



CROSSROADS WEST

600 146TH AVE NE
BELLEVUE, WA 98005

NOT FOR CONSTRUCTION UNLESS
LABELED AS CONSTRUCTION SET

SHEET NUMBER

G-1

DESIGN CRITERIA:

1. THE STRUCTURAL DESIGN OF THIS PROJECT IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2009 WITH WASHINGTON STATE BUILDING CODE AMENDMENTS (2009 IBC)

2. DESIGN LOADS:
DESIGN DATA FOR [BELLEVUE, WA]

–ROOF SNOW LOAD

N/A (NOT A ROOFTOP SOLUTION)

–BASIC WIND SPEED

85 MPH (100 MPH 3 SECOND GUSTS)

–WIND EXPOSURE

C

–SEISMIC ZONE

D

CONCRETE NOTES:

1. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI–318.

2. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH CHAPTER 19 OF THE 2009 IBC. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS.

TYPE OF CONSTRUCTION	28 DAY STRENGTHS (f'c)	W/C RATIO	MINIMUM CEMENT CONTENT PER CUBIC YARD
A. SLABS ON GRADE TOPPING SLABS CONCRETE PIERS	2,400 PSI	≤ .45	5 ½ SACKS
B. ALL STRUCTURAL CONCRETE EXCEPT WALLS	4,000 PSI	≤ .45	6 ½ SACKS
C. CONCRETE WALLS	4,000 PSI	≤ .45	6 ½ SACKS

CEMENT SHALL BE ASTM C150, PORTLAND CEMENT TYPE II U.N.O.

3. THE GENERAL CONTRACTOR SHALL SUPERVISE AND BE RESPONSIBLE FOR THE METHODS AND PROCEDURES OF CONCRETE PLACEMENT.

4. ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR–ENTRAINED WITH AN AIR–ENTRAINING AGENT CONFORMING TO ASTM C260, C494, C618, C989 AND C1017. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 1904.2.1 OF THE 2009 IBC.

5. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy=60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy=40,000 PSI. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615(S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D14 ARE SUBMITTED.

6. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH AC1 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT AT LEAST 30 BAR DIAMETERS OR A MINIMUM OF 2'–0". PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS AT LEAST 30 BAR DIAMETERS OR A MINIMUM OF 2'–0". LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A–185.

8. SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, fy=60,000 PSI.

9. NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE CONSULTANT.

10. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

– FOOTINGS AND OTHER UNFORMED SURFACES, EARTH FACE

3"

– FORMED SURFACES EXPOSED TO EARTH OR WEATHER

(#6 BARS OR LARGER)
(#5 BARS OR SMALLER)

2"
1 1/2"

– SLABS AND WALLS (INTERIOR FACE)

3/4"

11. BARS SHALL BE SUPPORTED ON CHAIRS OR DOBIE BRICKS.

12. ANCHOR BOLTS TO CONFORM TO ASTM A307.

13. NON–SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3,000 PSI MINIMUM).

14. ALL EXPANSION ANCHORS TO BE HILTI BRAND. ADHESIVE ANCHORS REQUIRE TESTING TO CONFIRM CAPACITY UNLESS WAIVED BY ENGINEER.

STRUCTURAL STEEL NOTES:

1. SHOP DRAWINGS FOR STRUCTURAL STEEL SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION.

2. STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION (INCLUDING FIELD WELDING, HIGH STRENGTH FIELD BOLTING, EXPANSION BOLTS, AND THREADED EXPANSION ANCHORS) SHALL BE BASED ON THE A.I.S.C. "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" LATEST EDITION. SUPERVISION SHALL BE IN ACCORDANCE WITH 2006 IBC CHAPTER 22, BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE CONSULTANT. THE CONSULTANT SHALL BE FURNISHED WITH A COPY OF ALL INSPECTION REPORTS AND TEST RESULTS.

3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER

A. PLATES, SHAPES, ANGLES, AND RODS	ASTM A36, Fy 36 KSI
B. SPECIAL SHAPES AND PLATES	ASTM A572, Fy 50 KSI
C. PIPE COLUMNS	ASTM A53, Fy 35 KSI
D. STRUCTURAL TUBING	ASTM A500, Fy 46 KSI
E. ANCHOR BOLTS	ASTM A307
F. CONNECTION BOLTS	ASTM A325 TWIST–OFF–TYPE

4. ALL MATERIAL TO BE HOT DIPPED GALVANIZED AFTER FABRICATION PER A123/A123M–00.

5. ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND AWS STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. WELDING OF GRADE 60 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING LOW HYDROGEN ELECTRODES. WELDING OF GRADE 40 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING E70 XX ELECTRODES. WELDING WITHIN 4" OF COLD BENDS IN REINFORCING STEEL IS NOT PERMITTED. SEE REINFORCING NOTE FOR MATERIAL REQUIREMENTS OF WELDED BARS.

6. COLD–FORMED STEEL FRAMING MEMBERS SHALL BE OF THE SHAPE, SIZE, AND GAGE SHOWN ON THE PLANS. PROVIDE MINIMUM SECTION PROPERTIES INDICATED. ALL COLD–FORMED STEEL FRAMING SHALL CONFORM TO THE A.I.S.S. "SPECIFICATION FOR THE DESIGN OF COLD–FORMED STEEL STRUCTURAL MEMBERS."

7. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (3/4" DIA.) AND SHALL HAVE A MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.

8. NON–STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A307 BOLTS UNLESS NOTED OTHERWISE.

9. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE DESIGN & CONSTRUCTION SPECIFICATION AND IN ACCORDANCE WITH ASTM A36 UNLESS NOTED OTHERWISE.

10. ALL WELDS TO BE 1/4" FILLET UNLESS NOTED OTHERWISE.

11. TOUCH UP ALL FIELD DRILLING AND WELDING WITH 2 COATS OF GALVACON (ZINC RICH PAINT) OR APPROVED EQUAL.

TOWER/POLE NOTES:

1. VERIFICATION THAT THE EXISTING TOWER/POLE CAN SUPPORT THE PROPOSED ANTENNA LOADING IS TO BE DONE BY OTHERS.

2. PROVIDE SUPPORTS FOR THE ANTENNA COAX CABLES TO THE ELEVATION OF ALL INITIAL AND FUTURE ANTENNAS. ANTENNA COAX CABLES ARE TO BE SUPPORTED AND RESTRAINED AT THE CENTERS SUITABLE TO THE MANUFACTURER'S REQUIREMENTS.

(AS PER "ACCIDENT PREVENTION PROGRAM" – BY PERMISSION OF WREN CONSTRUCTION, INC. – 03/01/99)

FALL PROTECTION METHODS AND EQUIPMENT
ROOF TOP INSTALLATIONS

1. FOR WORK IS BEING PERFORMED WITHIN 25' OF AN UNPROTECTED ROOF EDGE, THE CONSTRUCTION SUPERVISOR SHALL DESIGNATE A TRAINED SAFETY MONITOR TO OBSERVE THE MOVEMENTS AND ACTIVITIES OF THE CONSTRUCTION WORKERS.

2. SAFETY MONITOR SHALL WARN CONSTRUCTION WORKERS OF HAZARDS (I.E., BACKING UP TOWARD A ROOF EDGE, ETC.) OR UNSAFE ACTIVITIES. THE SAFETY MONITOR MUST BE ON THE SAME ROOF AND WITHIN VISUAL AND VERBAL DISTANCE OF THE CONSTRUCTION WORKERS.

3. CONSTRUCTION INVOLVING WORKERS TO APPROACH WITHIN 6' OR LESS OF AN UNPROTECTED ROOF EDGE, REQUIRES WORKERS TO USE SAFETY LINE.

4. SAFETY LINE SHALL BE MINIMUM ½" DIAMETER NYLON, WITH A NOMINAL TENSILE STRENGTH OF 5400 LBS.

5. SAFETY LINE SHALL BE ATTACHED TO A SUBSTANTIAL MEMBER OF THE STRUCTURE.

6. SAFETY LINE LENGTH SHALL BE SET ALLOWING CONSTRUCTION WORKER TO REACH EDGE OF ROOF, BUT NOT BEYOND.

7. SAFETY BELTS SHALL BE WORN BY ALL CONSTRUCTION WORKERS.

8. MONTHLY SAFETY INSPECTION AND MAINTENANCE OF THE FALL PROTECTION EQUIPMENT SHALL OCCUR BY THE SAFETY COMMITTEE REPRESENTATIVES, INCLUDING:

INSPECTION OF CONSTRUCTION AREA FOR HAZARDS
USE OF AN INSPECTION CHECKLIST
INTERVIEWING COWORKERS REGARDING SAFETY CONCERNS
REPORTING AND DOCUMENTING ANY HAZARDS
REPORTING HAZARDS TO THE SAFETY COMMITTEE FOR CONSIDERATION
POSTING RESULTS OF INSPECTION AND ANY ACTION TAKEN
RECEIVING AN UNBIASED REVIEW OF ONE'S OWN WORK AREA BY ANOTHER COWORKER SAFETY REPRESENTATIVE

REFER TO ROOFTOP WORK AREA SAFETY PROTOCOL
NATIONAL ASSOCIATION OF TOWER ERECTORS 2000 PUBLICATION

REFERENCED OSHA REGULATION/STANDARDS SHALL BE REVIEWED BY TOWER ERECTORS,
EQUIPMENT INSTALLERS, AND TOWER/ROOF TOP CONTRACTORS/SUBCONTRACTORS
29 CFR 1926.500 – SCOPE, APPLICATION, AND DEFINITIONS
29 CFR 1926.501 – DUTY TO HAVE FALL PROTECTION
19 CFR 1926.502 – FALL PROTECTION SYSTEMS CRITERIA AND PRACTICES

SYMBOLS:

- GRID REFERENCE

DETAIL REFERENCE

ELEVATION REFERENCE

SECTION REFERENCE

CENTERLINE

PROPERTY/LEASE LINE

MATCH LINE

WORK POINT

GROUND CONDUCTOR

TELEPHONE CONDUIT

ELECTRICAL CONDUIT

COAXIAL CABLE

OVERHEAD SERVICE CONDUCTORS

GROUT OR PLASTER

(E) BRICK

(E) MASONRY

CONCRETE

EARTH

GRAVEL

PLYWOOD

SAND

WOOD CONTINUOUS

WOOD BLOCKING

STEEL

NEW

EXISTING

NEW ANTENNA

EXISTING ANTENNA

GROUND ROD

GROUND BUS BAR

MECHANICAL GRND. CONN.

CADWELD

GROUND ACCESS WELL

ELECTRIC BOX

TELEPHONE BOX

LIGHT POLE

FND. MONUMENT

SPOT ELEVATION

SET POINT

REVISION

SPECIAL INSPECTIONS REQUIRED:

SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION
CONCRETE OVER 2400 PSI (5½ SACK MIX) AT 28 DAYS
CONCRETE PLACEMENT AT SLAB ON GRADE

WRITTEN CERTIFICATION FOR PROPER PLACEMENT OF REINFORCEMENTS AT SLAB ON GRADE

FOUNDATION EXCAVATION AND FILL INCLUDING UTILITY TRENCHES

CERTIFICATION OF BUILDING PAD, FOUNDATION AND FILL BY THE GEOTECHNICAL ENGINEER OF THE RECORD

VERIFICATIONS OF MILL REPORT

IDENTIFICATION OF STEEL AND AT JOB SITE

ADHESIVE BOLTS IN CONCRETE OR MASONRY

ANCHOR BOLTS INSTALLATION AND PLACEMENT IN CONCRETE

HIGH STRENGTH BOLTING

SPRAYED –ON– FIREPROOFING

STRUCTURAL MASONRY

PRESTRESSED CONCRETE

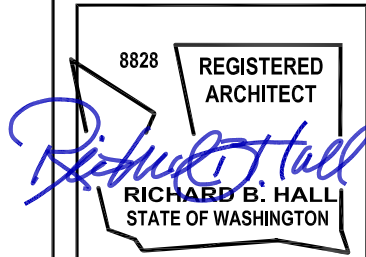
ALL FIELD WELDING

REINFORCING PLACEMENT

DESIGNER SPECIFIED (SEE SHEET#____)

OTHER _____

SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED AND SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.



EXPIRATION DATE OF THE
LICENSE: 08/20/13

CROSSROADS WEST

SD74

600 146TH AVE NE
BELLEVUE, WA 98005

REVISIONS

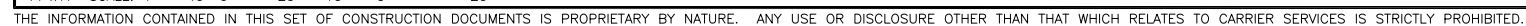
NO.	DATE	DESCRIPTION	INITIAL
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0	03/22/11	ISSUED FOR CONSTRUCTION	BDE
1	08/17/11	REVISED FOR CONSTRUCTION	WJR
2	04/20/12	REVISED FOR CONSTRUCTION	NL
3	05/17/12	REVISED FOR CONSTRUCTION	CBK

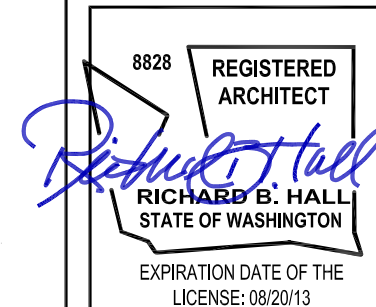
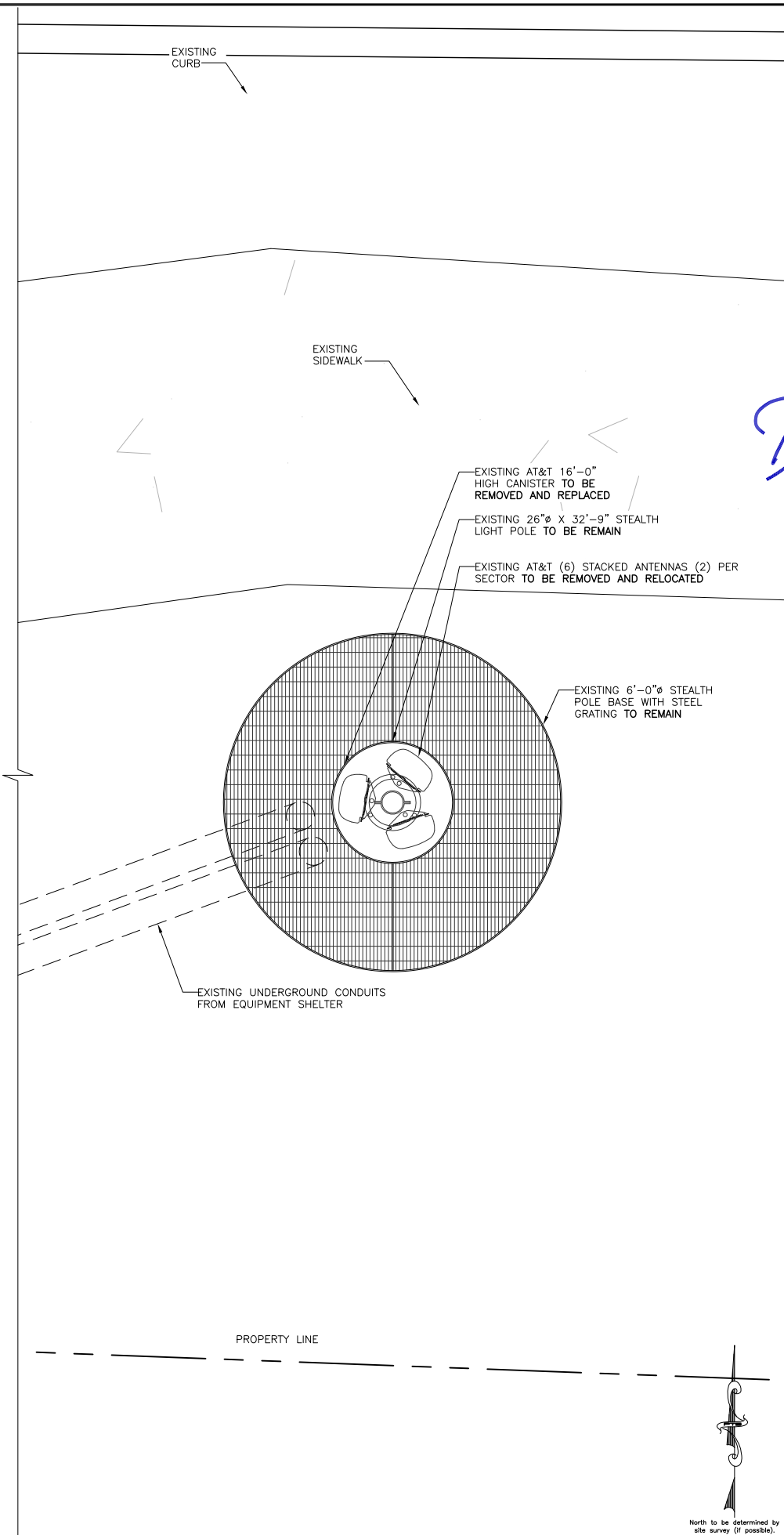
NOT FOR CONSTRUCTION UNLESS
LABELED AS CONSTRUCTION SET

SHEET TITLE
GENERAL NOTES & SYMBOLS

SHEET NUMBER

G-2





CROSSROADS WEST

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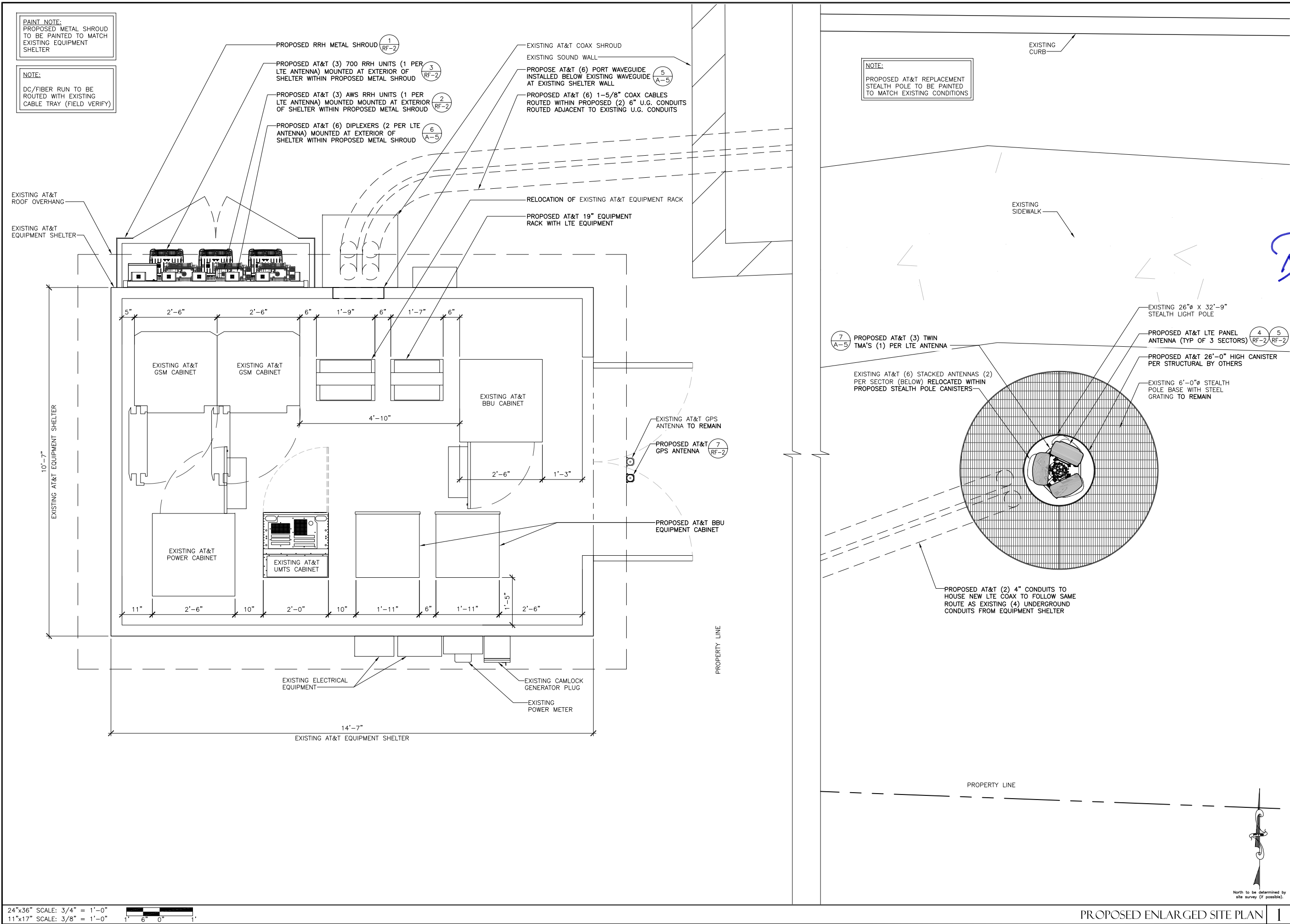
600 146TH AVE NE
BELLEVUE, WA 98005

NOT FOR CONSTRUCTION UNLESS
LABELED AS CONSTRUCTION SET

SHEET TITLE
EXISTING ENLARGED SITE PLAN

SHEET NUMBER

A-2



Your world. Delivered.

PACIFIC TELECOM SERVICES, LLC

8828

REGISTERED ARCHITECT

Richard B. Hall

RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

CROSSROADS WEST

SD74

600 146TH AVE NE
BELLEVUE, WA 98005

REVISIONS				
NO.	DATE	DESCRIPTION	INITIAL	
A	03/16/11	ISSUED FOR PCD REVIEW	BDE	
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NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

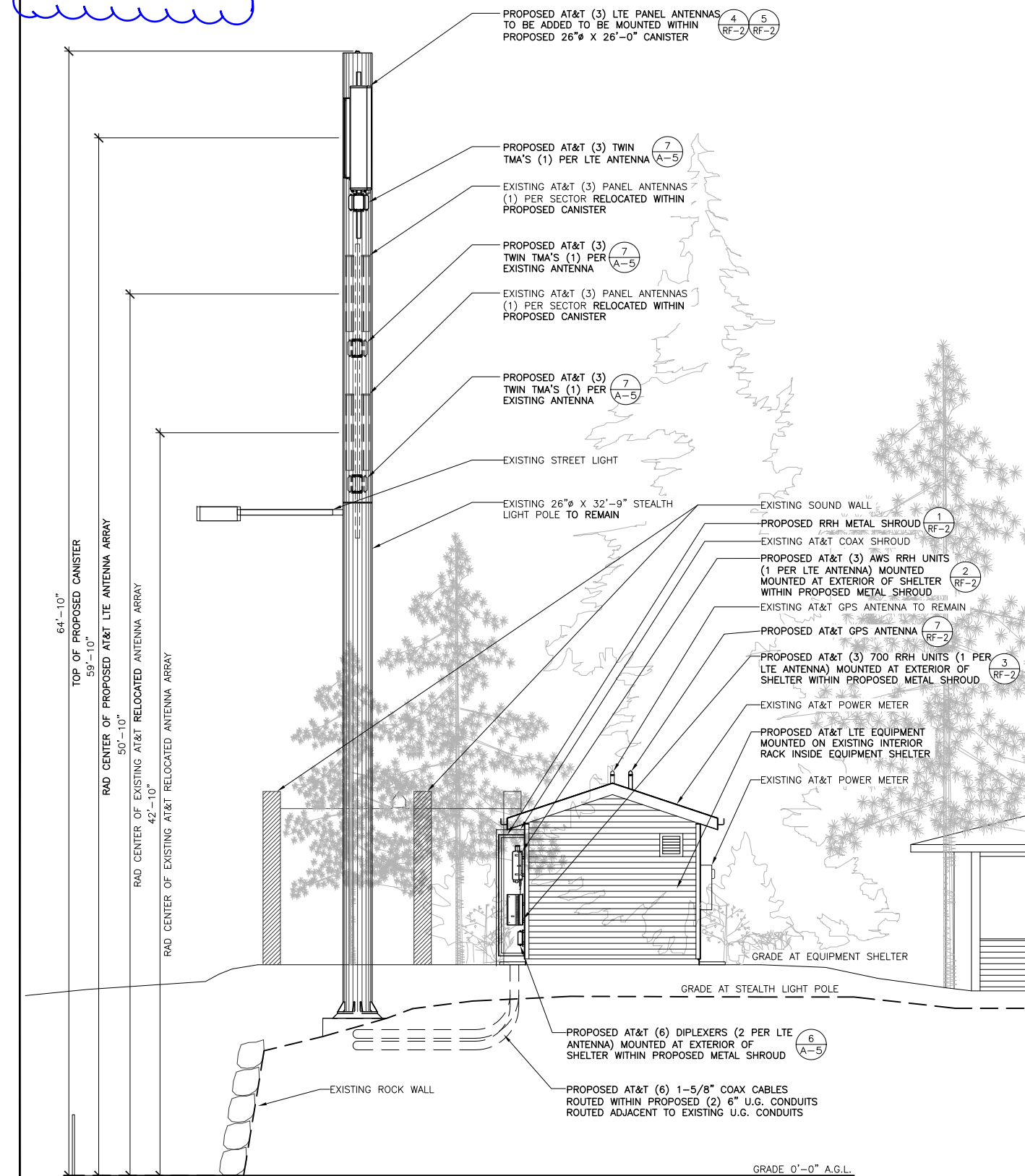
SHEET TITLE
PROPOSED ENLARGED SITE PLAN

SHEET NUMBER
A-3

PROPOSED ENLARGED SITE PLAN | 1

PROPOSED AT&T REPLACEMENT
STEALTH POLE TO BE PAINTED
TO MATCH EXISTING CONDITIONS

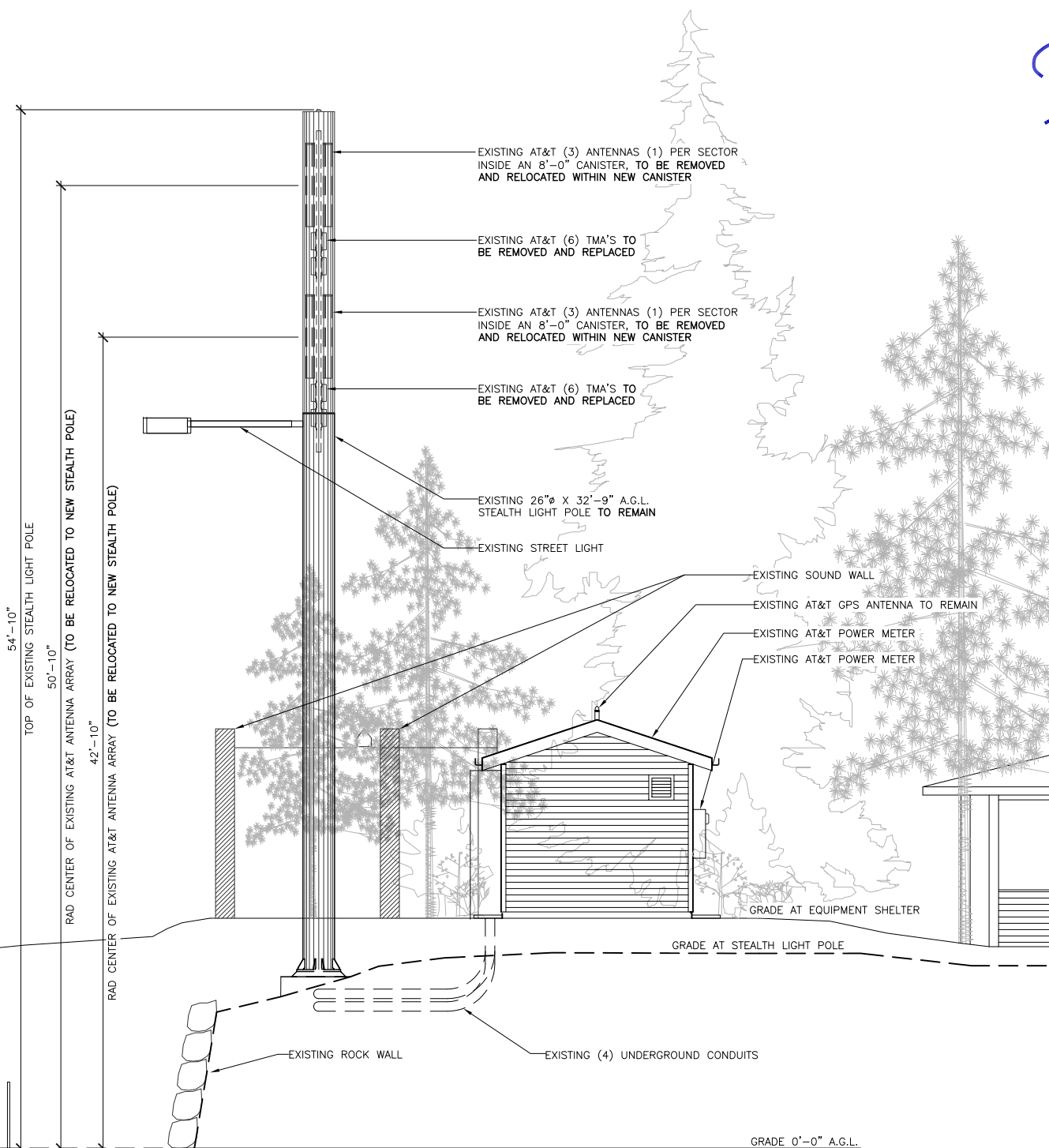
PAINT NOTE:
PROPOSED METAL SHROUD
TO BE PAINTED TO MATCH
EXISTING EQUIPMENT
SHELTER



24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"

PROPOSED WEST ELEVATION | 2

24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"



EXISTING WEST ELEVATION | 1



8828

**REGISTERED
ARCHITECT**

RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE
LICENSE: 08/20/13

CROSSROADS WEST

SD74

600 146TH AVE NE
BELLEVUE, WA 98005

[illegible]

NOT FOR CONSTRUCTION UNLESS
LABELED AS CONSTRUCTION SET

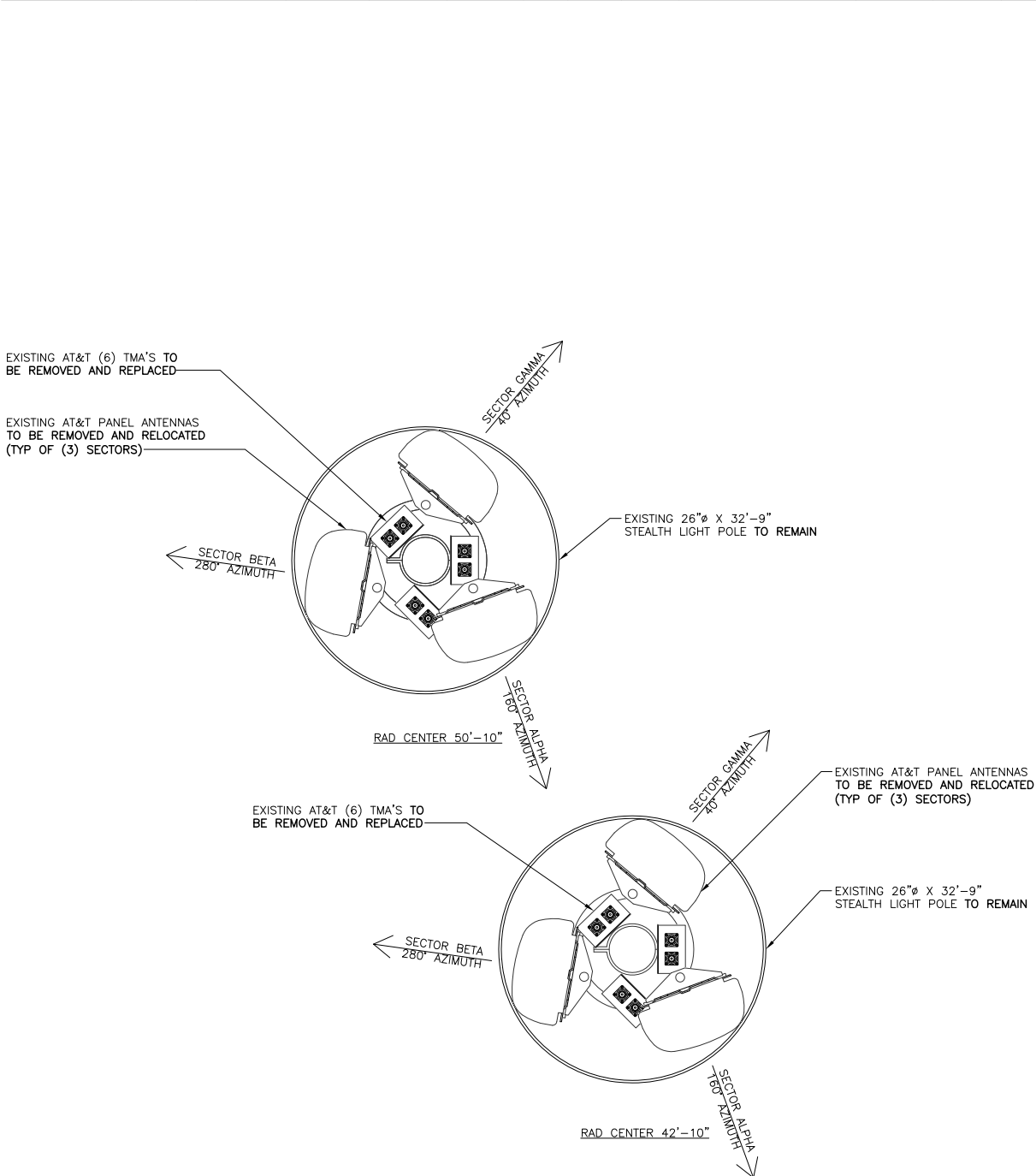
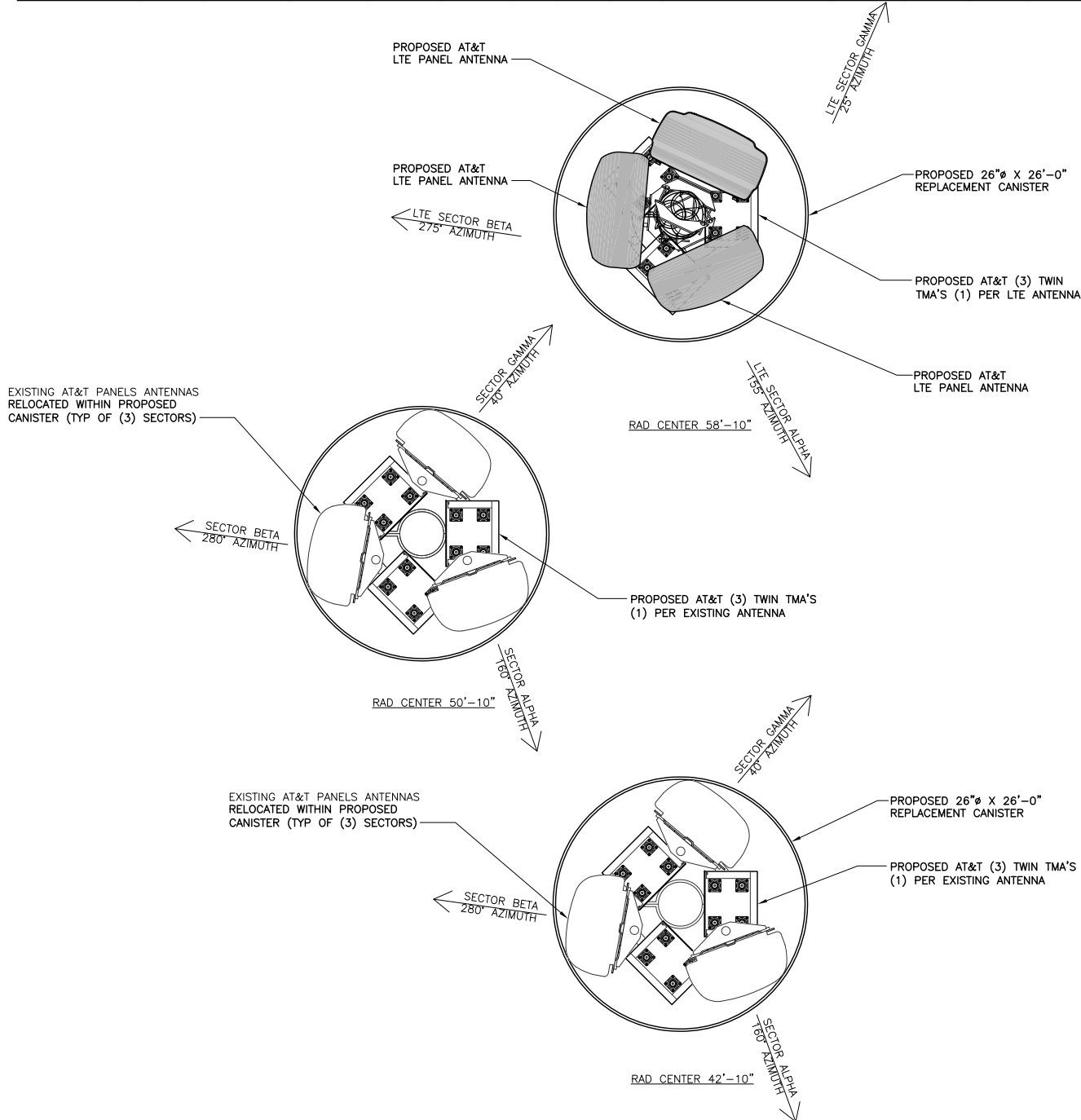
SHEET TITLE
EXISTING & PROPOSED
WEST ELEVATION

SHEET NUMBER

A-4

PROPOSED ANTENNA CONFIGURATION AND SCHEDULE													
SECTOR ALPHA	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	160°	42°–10"	1	KATHREIN	742 264	8	0°		NONE	2	1 5/8"	240'–0"	YES G8/G9
GSM 1900						0		TTAW–07BP111–001					
UMTS 850						6		NONE					
UMTS 1900	160°	50–10"	1	KATHREIN	742 264	4	0°		TTAW–07BP111–001	2	1 5/8"	240'–0"	YES U8/U9
LTE 700	155°	59°–10"	1	KMW	AM–X–CD–16–65–RET	5	0°	YES	TTAW–07BP111–001	2	1 5/8"	255'–0"	YES L7 FU
						5							
SECTOR BETA	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	280°	42°–10"	1	KATHREIN	742 264	10	0°	YES	NONE	2	1 5/8"	240'–0"	YES G8/G9
GSM 1900						0		YES	TTAW–07BP111–001				
UMTS 850	280°	50–10"	1	KATHREIN	742 264	12	0°	YES	NONE	2	1 5/8"	240'–0"	YES U8/U9
UMTS 1900						6		YES	TTAW–07BP111–001				
LTE 700	275°	59'–10"	1	KMW	AM–X–CD–16–65–RET	8	0°	YES	TTAW–07BP111–001	2	1 5/8"	255'–0"	YES L7 FU
						8							
SECTOR GAMMA	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	40°	42°–10"	1	KATHREIN	742 264	8	0°	YES	NONE	2	1 5/8"	240'–0"	YES G8/G9
GSM 1900						0		YES	TT19–08BP111–001				
UMTS 850	40°	50–10"	1	KATHREIN	742 264	8	0°	YES	NONE	2	1 5/8"	240'–0"	YES U8/U9
UMTS 1900						2		YES	TT19–08BP111–001				
LTE 700	25°	59'–10"	1	KATHREIN	80010764	8	0°	YES	TTAW–07BP111–001	2	1 5/8"	255'–0"	YES L7/FU
						8							

EXISTING ANTENNA CONFIGURATION AND SCHEDULE													
SECTOR ALPHA	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	160°	50°–10"	1	KATHREIN	742 264	8	0°	YES	NONE	2	1 5/8"	240'–0"	YES G8/G9
GSM 1900						0		NONE					
UMTS 850	160°	42°–10"	1	KATHREIN	742 264	6	0°	YES	NONE	2	1 5/8"	240'–0"	YES U8/U9
UMTS 1900						4		(2) LGP 21401					
UMTS 1900_1						4		–					
UMTS 850_1						6		NONE					
SECTOR BETA	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	280°	50°–10"	1	KATHREIN	742 264	10	0°	YES	NONE	2	1 5/8"	240'–0"	YES G8/G9
GSM 1900						0		YES	NONE				
UMTS 850	280°	42°–10"	1	KATHREIN	742 264	12	0°	YES	NONE	2	1 5/8"	240'–0"	YES U8/U9
UMTS 1900						6		YES	(2) LGP 21401				
UMTS 1900_1						6		YES	–				
UMTS 850_1						12		YES	NONE				
SECTOR GAMMA	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	40°	50°–10"	1	KATHREIN	742 264	8	0°	YES	NONE	2	1 5/8"	240'–0"	YES G8/G9
GSM 1900						0		YES	NONE				
UMTS 850	40°	42°–10"	1	KATHREIN	742 264	8	0°	YES	NONE	2	1 5/8"	240'–0"	YES U8/U9
UMTS 1900						2		YES	(2) LGP 21401				
UMTS 1900_1						2		YES	–				
UMTS 850_1						8		YES	NONE				



24"x36" SCALE: 1–1/2" = 1'–0"
11"x17" SCALE: 3/4" = 1'–0"

PROPOSED ANTENNA CONFIGURATION

2

24"x36" SCALE: 1–1/2" = 1'–0"
11"x17" SCALE: 3/4" = 1'–0"

EXISTING ANTENNA CONFIGURATION

1



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RICHARD B. HALL
STATE OF WASHINGTON
EXPIRATION DATE OF THE LICENSE: 08/20/13

CROSSROADS WEST

SD74

600 146TH AVE NE
BELLEVUE, WA 98005

REVISIONS

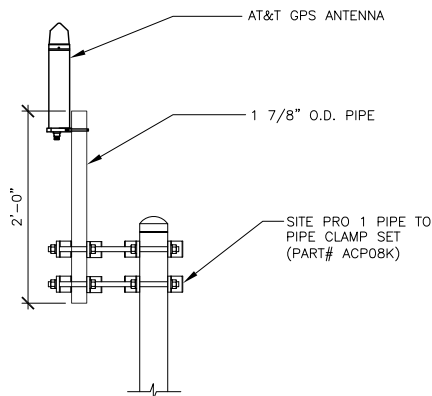
NO.	DATE	DESCRIPTION	INITIAL
A	03/16/11	ISSUED FOR PCD REVIEW	BDE
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1	08/17/11	REVISED FOR CONSTRUCTION	WJR
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LABELED AS CONSTRUCTION SET

SHEET TITLE
ANTENNA CONFIGURATIONS

SHEET NUMBER

RF-1



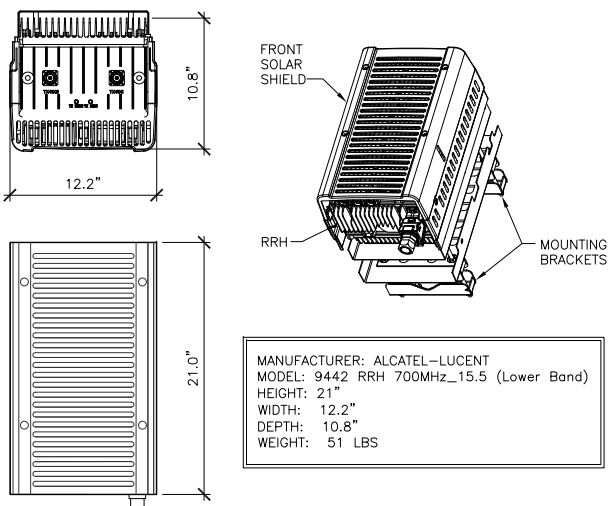
NOTES:

1. LOCATION OF ANTENNA MUST HAVE CLEAR VIEW OF SOUTHERN SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF THE SURFACE AREA OF A HEMISPHERE AROUND THE GPS ANTENNA.
2. ALL GPS ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF FOUR (4) SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF GPS ANTENNA.

GPS MOUNTING DETAIL

24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

7



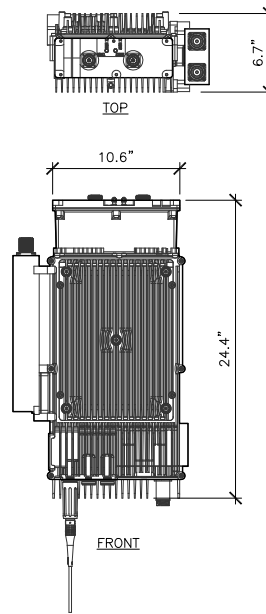
MANUFACTURER: ALCATEL-LUCENT
MODEL: 9442 RRH 700MHz_15.5 (Lower Band)
HEIGHT: 21"
WIDTH: 12.2"
DEPTH: 10.8"
WEIGHT: 51 LBS

RRH 700MHZ DETAIL

24"x36" SCALE: 1 1/2"=1'-0"
11"x17" SCALE: 3/4"=1'-0"

3

NOTE:
MOUNT RRH UNITS PER
MANUFACTURES SPECIFICATIONS



MANUFACTURER: ALCATEL-LUCENT
MODEL: 9442 RRH AWS
HEIGHT: 24.4"
WIDTH: 10.6"
DEPTH: 6.7"
WEIGHT: 43 LBS

RRH AWS DETAIL

24"x36" SCALE: 1 1/2"=1'-0"
11"x17" SCALE: 3/4"=1'-0"

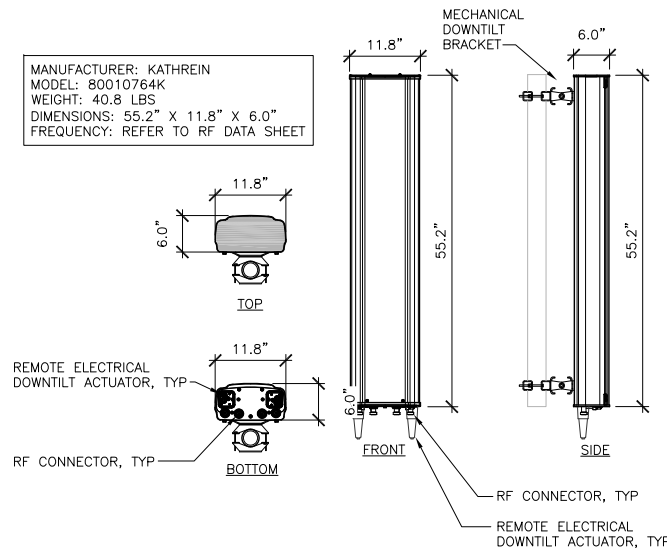
2

NOT USED

24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

6

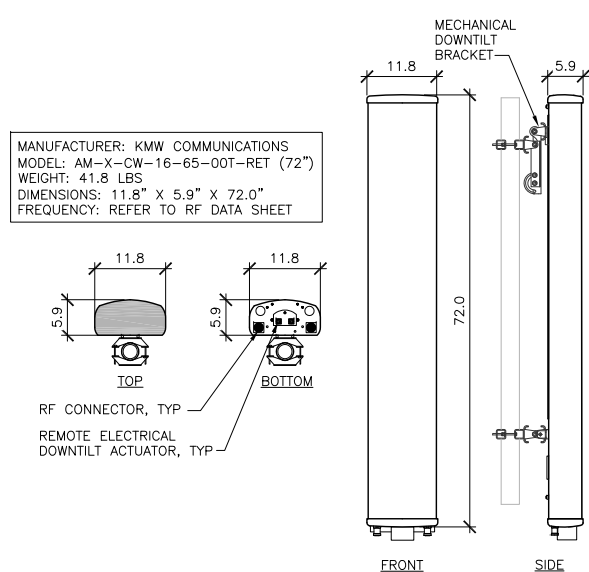
KATHREIN ANTENNA SPECIFICATIONS



MANUFACTURER: KATHREIN
MODEL: 80010764K
WEIGHT: 40.8 LBS
DIMENSIONS: 55.2" X 11.8" X 6.0"
FREQUENCY: REFER TO RF DATA SHEET

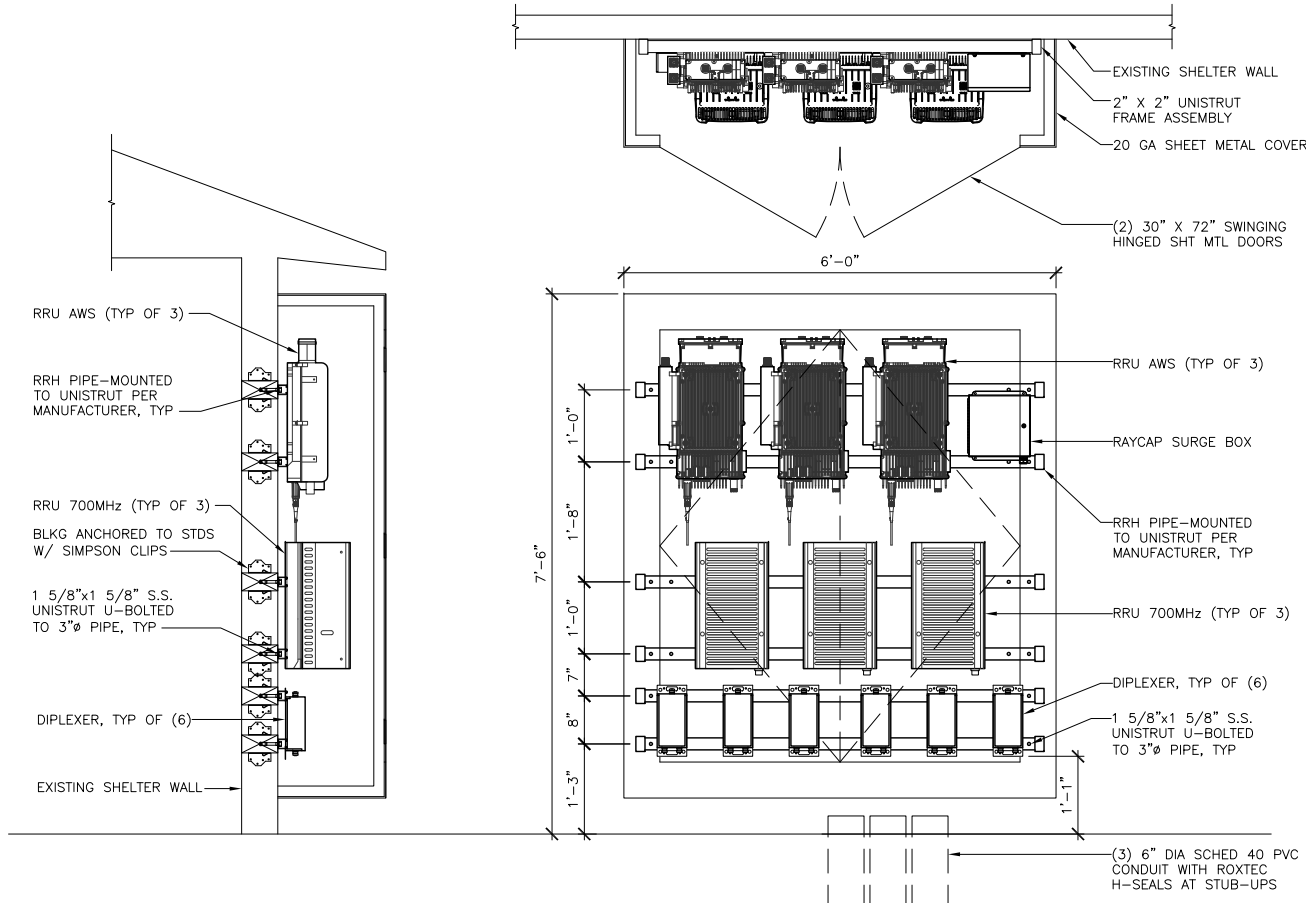
5

ANTENNA SPECIFICATIONS



MANUFACTURER: KMW COMMUNICATIONS
MODEL: AM-X-CW-16-65-00T-RET (72")
WEIGHT: 41.8 LBS
DIMENSIONS: 11.8" X 5.9" X 72.0"
FREQUENCY: REFER TO RF DATA SHEET

4



RRH AND DIPLEXER MOUNTING

24"x36" SCALE: 3/4"=1'-0"
11"x17" SCALE: 3/8"=1'-0"

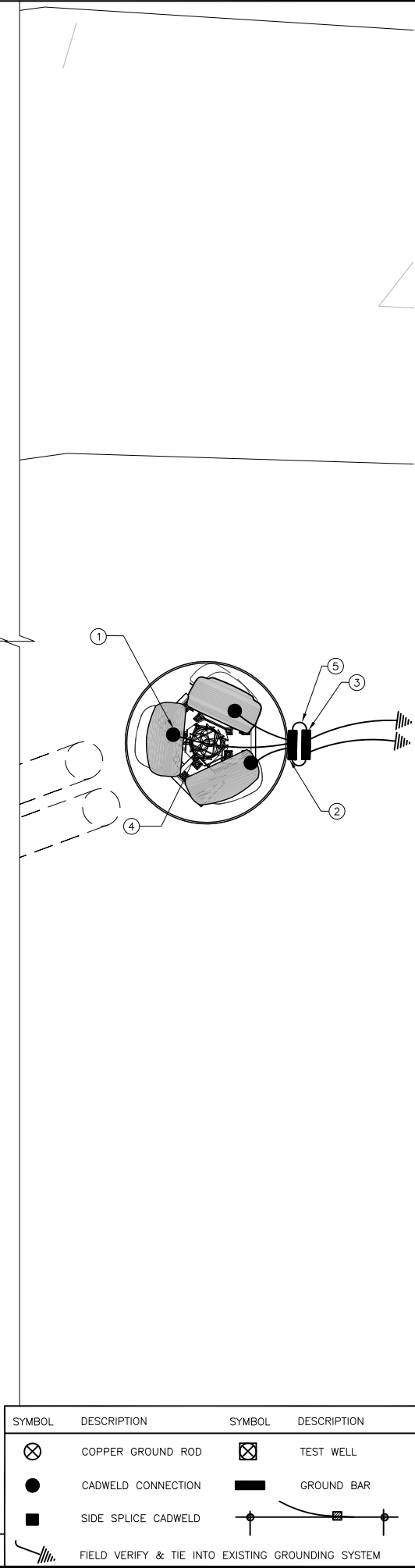
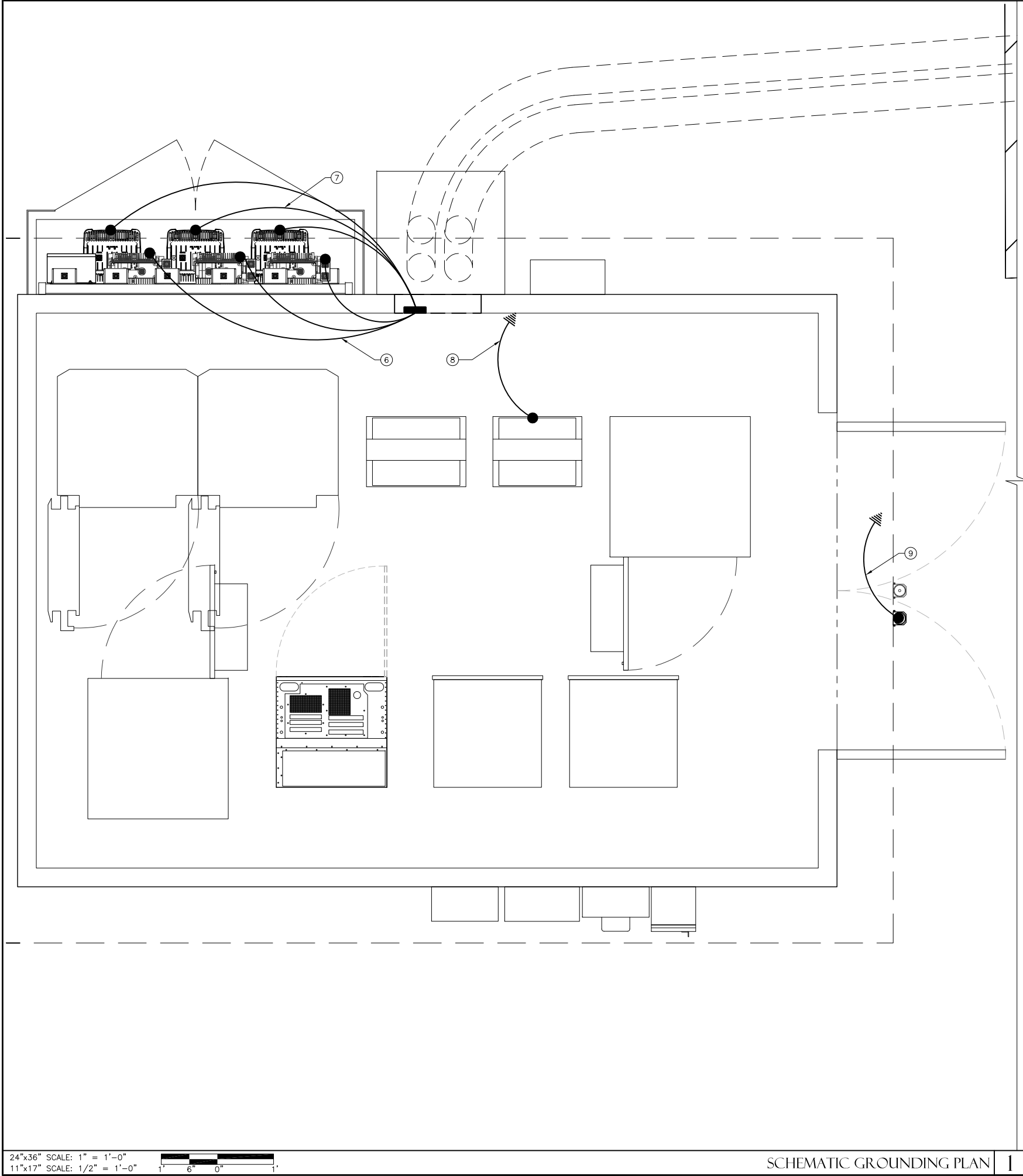
1

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3	05/17/12	REVISED FOR CONSTRUCTION	CBK	


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LABELED AS CONSTRUCTION SET

SHEET TITLE
RF DETAILS



SHEET NUMBER
RF-2



- GROUNDING KEYED NOTES:
- ① CAD WELD (TYP). SEE DETAIL 2/E-2.
 - ② EXISTING ANTENNA GROUND BUS BAR NEAR AT ANTENNA LEVEL OF LIGHT POLE WITH COAX GROUND KIT. SEE DETAIL 9/E-2 FOR GROUND BAR CONSTRUCTION, SEE DETAIL 7/E-2 FOR GROUND WIRE CONNECTIONS, AND SEE DETAIL 6/E-2 FOR COAX GROUNDING.
 - ③ EXISTING GROUND BUS BAR AT BASE OF LIGHT POLE. SEE DETAIL 9/E-2 FOR GROUND BAR CONSTRUCTION, SEE DETAIL 7/E-2 FOR GROUND WIRE CONNECTIONS, AND SEE DETAIL 6/E-2 FOR COAX GROUNDING.
 - ④ #6 AWG ANTENNA MOUNT GROUND TO ANTENNA GROUND BUS BAR (TYP OF 3) SEE DETAIL 5/E-2.
 - ⑤ EXISTING GROUND FROM ANTENNA GROUND BUS BAR TO LIGHT POLE GROUND BUS BAR (TYP OF (2) PLACES). SEE DETAIL 7/E-2.
 - ⑥ #6 AWG AWS RRH UNIT GROUND TO TIE INTO EXISTING SYSTEM GROUND RING. (TYP OF 3) SEE DETAIL 5/E-2.
 - ⑦ #6 AWG 700 RRH UNIT GROUND TO TIE INTO EXISTING SYSTEM GROUND RING. (TYP OF 3) SEE DETAIL 5/E-2.
 - ⑧ #6 AWG LTE EQUIPMENT TO TIE INTO EXISTING SYSTEM GROUND RING.
 - ⑨ #6 AWG GPS ANTENNA TO TIE INTO EXISTING SYSTEM GROUND RING




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PACIFIC TELECOM SERVICES, LLC

8828


REGISTERED ARCHITECT
RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

GROUNDING NOTES & LEGEND

GENERAL GROUNDING NOTES

1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
2. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING GROUND WIRES AND CONNECT TO SURFACE MOUNTED BUS BARS. FOLLOW ANTENNA AND BTS MANUFACTURERS PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS AND EXIT FROM TOWER OR POLE USING MFR'S PRACTICES.
3. ALL GROUND CONNECTIONS SHALL BE CADWELD. ALL WIRES SHALL BE COPPER THHN/THWN. ALL GROUND WIRE SHALL BE GREEN INSULATED WIRE ABOVE GROUND.
4. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE. GROUNDING AND OTHER OPERATIONAL TESTING WILL BE WITNESSED BY AT&T WIRELESS, LLC. REPRESENTATIVE.
5. REFER TO DIVISION 16 GENERAL ELECTRIC; GENERAL ELECTRICAL PROVISION AND COMPLY WITH ALL REQUIREMENTS OF GROUNDING STANDARDS.
6. ELECTRICAL CONTRACTOR TO PROVIDE DETAILED DESIGN OF GROUNDING SYSTEM, AND RECEIVE APPROVAL OF DESIGN BY AUTHORIZED AT&T MOBILITY REPRESENTATIVE, PRIOR TO INSTALLATION OF GROUNDING SYSTEM. PHOTO DOCUMENT ALL CADWELDS AND GROUND RING
7. NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

GROUNDING ROD NOTES

(WHERE APPLICABLE)

ELECTRICAL CONTRACTOR SHALL ORDER GROUND RESISTANCE TESTING ONCE THE GROUND SYSTEM HAS BEEN INSTALLED; A QUALIFIED INDIVIDUAL, UTILIZING THE FALL OF POTENTIAL METHOD, SHOULD PERFORM THE TEST. THE REPORT WILL SHOW THE LOCATION OF THE TEST AND CONTAIN NO LESS THAN 9 TEST POINTS ALONG THE TESTING LINE, GRAPHED OUT TO SHOW THE PLATEAU.

2 POINT GROUND TEST OR 3 POINT 62% TESTS WILL NOT BE ACCEPTED AS ALTERNATIVES TO THE AFORE MENTIONED GROUND TESTS. TEST SHALL BE PERFORMED WHILE THE COUNTERPOISE IS ISOLATED FROM THE A/C SYSTEM GRIDS AND EXISTING COMMUNICATIONS FACILITY.

CROSSROADS WEST

SD74

600 146TH AVE NE
BELLEVUE, WA 98005

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SHEET TITLE

SCHEMATIC GROUNDING PLAN

SHEET NUMBER

E-1

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

15

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

14

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

13

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

12

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

11

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

10

NOTE: COAT ALL MECHANICAL CONNECTIONS WITH "NOOX" OR APPROVED EQUAL

NEW COAXIAL GROUND KITS W/ LONG BARREL COMPRESSION DOUBLE LUGS, ATTACH TO GROUND BAR & INSTALL BY ANTENNA CONTRACTOR (CADWELD TYPE-GL)

NEW 4"x 24"x 1/4" thk COPPER GROUND BAR. INSTALLED BY GENERAL CONTRACTOR

4"

24"

FIELD VERIFY

#2 SOLID BARE TINNED COPPER WIRE CADWELD (TYPE-GL)

GROUND BAR

9

COPPER GROUND BAR ON WALL, ICE BRIDGE, FLOOR OR ON ANTENNA TOWER

#6 AWG FROM ANTENNA CABLE GROUND KIT

*TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH #2 AWG BCW TO BUILDING SERVICE GROUND OR GROUND RING

GROUND CONDUCTOR SHALL BE ELIMINATED WHEN GROUND BAR IS ELECTRICALLY BONDED TO METAL TOWER/MONPOLE STRUCTURE

NOTE: GROUND BARS AT BOTTOM OF TOWERS/MONOPOLES SHALL ONLY USE EXOTHERMIC WELDS.

GROUND WIRE INSTALLATION

7

ANTENNA CABLE

2 1/2" DIA. MAX.

(TYPICALLY) 12" TO 24"

120" MAX.

WEATHERPROOFING KIT (SEE NOTE 3)

CABLE GROUND KIT

#6 AWG STRANDED COPPER GROUND WIRE (GROUNDED TO GROUND BAR). SEE NOTE 1 & 2

CABLE CONNECTOR

NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

CABLE GROUND KIT CONNECTION

6

TO ANTENNAS

RX2

TX1/RX1

COAX JUMPER (TYP.)

CONNECTOR WEATHERPROOFING KIT (TYP.) SEE NOTE 2

ANTENNA CABLE TO BTS EQUIPMENT (TYP.)

WEATHERPROOFING KIT (TYP.)

GROUND KIT (TYP.)

#6 AWG

ISOLATE FROM TOWER HALO w/ #2 TO LOWER TOWER BUS BAR

COPPER ANTENNA GROUND BAR, WITH INSULATORS. BONDED DIRECTLY TO TOP OF MONOPOLE OR UTILITY POLE TO GROUND RING

NOTES:
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

GROUND CABLE CONNECTION

5

TYPE_TA

TYPE_VN

TYPE_NC

TYPE_SS

TYPE_VV

TYPE_VS

TYPE_VB

TYPE_PT

TYPE_GT

TYPE_GY

TYPE_GR

TYPE_GL

CADWELD GROUNDING CONNECTIONS

2

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

4

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

3

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

2

NOT USED
24"x36" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

1



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WESTOWER
COMMUNICATIONS



PTS

PACIFIC TELECOM SERVICES,
LLC

8828

REGISTERED
ARCHITECT



RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE
LICENSE: 08/20/13

CROSSROADS WEST

SD74

600 146TH AVE NE
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SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

E-2

E Stead
9/13

City of Bellevue Submittal Requirements

27a

ENVIRONMENTAL CHECKLIST

4/18/02

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Our TTY number is 425-452-4636.

BACKGROUND INFORMATION

Received

APR 24 2012

Permit Processing

Property Owner: PUGET SOUND ENERGY

Proponent: AT&T Mobility - Sunny Ausink

Contact Person: Sunny Ausink

(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: 111 S. JACKSON STREET, SUITE#200, SEATTLE, WA 98104

Phone: 206-446-0448

Proposal Title: AT&T MOBILITY SD74 CROSSROADS WEST

Proposal Location: APN#8839900015 - Site Address 600 146TH AVENUE NE

(Street address and nearest cross street or intersection) Provide a legal description if available.

Please attach an 8 1/2" x 11" vicinity map that accurately locates the proposal site.

Give an accurate, brief description of the proposal's scope and nature:

AT&T proposes to add (3) new LTE antennas to an existing stealth light pole and ancillary equipment.

1. General description: In addition, AT&T proposes to increase the height of the existing 54'-10" pole by 10 feet for a total of height of 64'-10". This height increase is necessary for the functioning of the additional antennas. The
2. Acreage of site: proposed antennas will be hidden from public view and concealed within the proposed canister shroud.
3. Number of dwelling units/buildings to be demolished: N/A ✓
4. Number of dwelling units/buildings to be constructed: N/A ✓
5. Square footage of buildings to be demolished: N/A ✓
6. Square footage of buildings to be constructed: N/A ✓
7. Quantity of earth movement (in cubic yards): N/A ✓
8. Proposed land use: Modification of WCF on existing PSE utility pole. ✓
Wireless Comm. Facility
9. Design features, including building height, number of stories and proposed exterior materials:
AT&T proposes to add (3) new LTE antennas to an existing stealth light pole and ancillary equipment. In addition,
10. Other: AT&T proposes to increase the height of the existing 54'-10" pole by 10 feet for a total of height of 64'-10". ✓

Estimated date of completion of the proposal or timing of phasing:

Construction will begin upon receipt of applicable permits. ✓

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

YES, POSSIBLE UPGRADE OR ANTENNAS REPLACEMENT IF NEW TECHNOLOGY IS NEEDED.

Separate review required

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

SEPA checklist ✓

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known.

None known ✓

CD - Antenne Permit

List any government approvals or permits that will be needed for your proposal, if known. If permits have been applied for, list application date and file numbers, if known.

SEPA DNS and Construction permit. ✓

Please provide one or more of the following exhibits, if applicable to your proposal.
(Please check appropriate box(es) for exhibits submitted with your proposal):

- ☐ Land Use Reclassification (rezone) Map of existing and proposed zoning
- ☐ Preliminary Plat or Planned Unit Development
Preliminary plat map
- ☐ Clearing & Grading Permit
Plan of existing and proposed grading
Development plans
- ☒ Building Permit (or Design Review) ✓
Site plan
Clearing & grading plan
- ☐ Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: ☐ Flat ☐ Rolling ☒ Hilly ☐ Steep slopes ☐ Mountains ☐ Other

b. What is the steepest slope on the site (approximate percent slope)?

This is an existing WCF facility. ✓

c. What general types of soil are found on the site (for example, clay, sand, gravel, peat, and muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

None Known. ✓

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

None Known. ✓

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

This is an existing WCF facility on a utility pole, only work to the antennas will be proposed. ✓

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. Erosion could only occur from heavy machinery moving about the site during construction.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

None proposed. ✓

No clearing

*Existing pole + equipment shed.
Minor trenching for coax cable*

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Best management practices will be used during construction.

*<1,000 ft²,
disturbance*

2. AIR

- a. What types of emissions to the air would result from the proposal (i.e. dust, automobile odors, and industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known. ✓

Minimal emissions would result from the proposal. Any possible emissions will be from vehicles entering and leaving site during construction.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. ✓

None.

- c. Proposed measures to reduce or control emissions or other impacts to the air, if any: ✓

Not Applicable.

3. WATER

- a. Surface

- (1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If

appropriate, state what stream or river it flows into. ✓

None.

- (2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If ✓
Yes, please describe and attach available plans.

No

- (3) Estimate the amount of fill and dredge material that would be placed in or removed from surface ✓
water or wetlands and indicate the area of the site that would be affected. Indicate the source of
fill material.

None

- (4) Will the proposal require surface water withdrawals or diversions? Give general description, ✓
purpose, and approximate quantities if known.

None

- (5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. ✓

No

- (6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe ✓
the type of waste and anticipated volume of discharge.

None

b. Ground

- (1) Will ground water be withdrawn, or will water be discharged to ground water? Give general ✓
description.

No

- (2) Describe waste material that will be discharged into the ground from septic tanks or other sources, ✓
if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None

c. Water Runoff (Including storm water)

- (1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. ✓

Not applicable

- (2) Could waste materials enter ground or surface waters? If so, generally describe. ✓

Not Applicable

- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any: ✓

None

4. Plants

- a. Check or circle types of vegetation found on the site: ✓

- ☐ deciduous tree: alder, maple, aspen, other
- ☒ evergreen tree: fir, cedar, pine, other
- ☒ shrubs
- ☒ grass
- ☐ pasture
- ☐ crop or grain
- ☐ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- ☐ water plants: water lily, eelgrass, milfoil, other
- ☐ other types of vegetation

No disturbance to existing landscaping.

- b. What kind and amount of vegetation will be removed or altered? ✓

Not Applicable.

Restoration is minor disturbance due to trenching.

- c. List threatened or endangered species known to be on or near the site. ✓

None

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: ✓

None

5. ANIMALS

- a. Check or circle any birds and animals which have been observed on or near the site or are known to be on or near the site: ✓
- ☐ Birds: hawk, heron, eagle, songbirds, other:
 - ☐ Mammals: deer, bear, elk, beaver, other:
 - ☐ Fish: bass, salmon, trout, herring, shellfish, other:
- b. List any threatened or endangered species known to be on or near the site. ✓
None Known
- c. Is the site part of a migration route? If so, explain. ✓
No
- d. Proposed measures to preserve or enhance wildlife, if any: ✓
None

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy need? Describe whether it will be used for heating, manufacturing, etc. ✓
The project will require access to existing Electrical Power and Telephone.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. ✓
No
- c. What kinds of energy conservation features are included in the plans of the proposal? List other proposed measures to reduce or control energy impacts, if any: ✓
None Proposed

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. ✓

None

(1) Describe special emergency services that might be required.

None

(2) Proposed measures to reduce or control environmental health hazards, if any.

None

b. Noise

- (1) What types of noise exist in the area which may affect your project (for example, traffic, equipment, operation, other)? ✓

The only noise will be from the existing radio equipment which is comparable to the sound of an air conditioner.

- (2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example, traffic, construction, operation, other)? Indicate what hours noise would come from the site. ✓
Comparable to existing

None Needed.

- (3) Proposed measures to reduce or control noise impacts, if any: ✓

None proposed.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? ✓

Existing PSE utility pole with existing AT&T antennas. *Wireless facility*

- b. Has the site been used for agriculture? If so, describe. ✓

No

- c. Describe any structures on the site. ✓

Existing AT&T antennas concealed within existing canister on utility pole.

- d. Will any structures be demolished? If so, what? ✓

None

- e. What is the current zoning classification of the site? ✓

R-20 Residential

- f. What is the current comprehensive plan designation of the site? ✓

R-20 Residential

- g. If applicable, what is the current shoreline master program designation of the site? ✓

Not applicable

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify. ✓

Not Applicable

- i. Approximately how many people would reside or work in the completed project? ✓

None

- j. Approximately how many people would the completed project displace? ✓

Not applicable - this is an existing unstaffed facility.

- k. Proposed measures to avoid or reduce displacement impacts, if any: ✓

None proposed.

- i. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: ✓

The proposal is a passive use which will not have negative impact on the surrounding properties.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. ✓

Not Applicable.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. ✓

Not Applicable.

- c. Proposed measures to reduce or control housing impacts, if any: ✓

Not Applicable

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Existing utility pole is 54'-10" tall. Proposal is for height increase of 10' for a total height of 64'-10".

- b. What views in the immediate vicinity would be altered or obstructed?

None Minor view change for vehicle drivers.

All equipment will be located within canister.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

New antennas will be concealed within canister shroud.

Canister to be painted to match existing pole.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? ✓

None

- b. Could light or glare from the finished project be a safety hazard or interfere with views? ✓

No

